THE HIGH RISK OCCUPATIONAL DISEASE NOTIFICATION AND PREVENTION ACT OF 1985

JOINT HEARINGS

BEFORE THE

SUBCOMMITTEE ON HEALTH AND SAFETY

AND THE

SUBCOMMITTEE ON LABOR STANDARDS

OF THE

COMMITTEE ON EDUCATION AND LABOR
HOUSE OF REPRESENTATIVES

NINETY-NINTH CONGRESS

FIRST AND SECOND SESSIONS

ON

H.R. 1309

TO ESTABLISH A SYSTEM FOR IDENTIFYING, NOTIFYING, AND PREVENTING ILLNESS AND DEATH AMONG WORKERS WHO ARE AT INCREASED OR HIGH RISK OF OCCUPATIONAL DISEASE, AND FOR OTHER PURPOSES

HEARINGS HELD IN WASHINGTON, DC, OCTOBER 9; NOVEMBER 6, 13, AND 20, 1985; AND MARCH 19, 1986

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THE HIGH RISK OCCUPATIONAL DISEASE NOTIFICATION AND PREVENTION ACT OF 1985

WEDNESDAY, OCTOBER 9, 1985

House of Representatives,
Subcommittee on Health and Safety, and
Subcommittee on Labor Standards,
Committee on Education and Labor,
Washington, DC.

The subcommittees met, pursuant to call, at 9:30 a.m., in room 2261, Rayburn House Office Building, Hon. Joseph M. Gaydos (chairman of the Subcommittee on Health and Safety) presiding.

Members present: Representatives Gaydos, Murphy, Jeffords, Petri, Bartlett, and Chandler.

Subcommittee on Health and Safety staff present: Sy Holzman, deputy staff director; Lee Bassford, staff assistant.

Subcommittee on Labor Standards staff present: Richard Fiesta, counsel; Theresa Faunce, clerk.

Committee on Education and Labor staff present: Dorothy Strunk, minority senior legislative associate.

Mr. Gaydos. The committee will be in order.

Accompanying me is Chairman Murphy, and other members will be coming and going, hopefully.

Just 2 weeks ago, the Wall Street Journal focused front-page attention on the problem of mercury exposures on workers at a Vermont thermometer factory. The story noted that, because of those workplace exposures, employees tracked mercury through their homes and infected their children, causing a wide range of immediate health problems.

Last week, an Associated Press item in the New York Times noted that a chemical widely used in manufacturing synthetic rubber and plastic materials may soon come under Government regulation as both an occupational hazard and a cancer-causing air pollutant.

These are just two very recent examples of workplace exposures that may present both immediate and long-term health problems for workers and their families. My specific concern, and as a committee, the joint committee, Mr. Murphy's, is the long-term impact. We know that many of the substances to which workers are exposed can lead to cancer, heart, and respiratory diseases that may not become visible for many years after the period of exposure.

To provide for a system of monitoring these exposed workers, after identifying their worker population and notifying them individually, is the heart of the bill I introduced earlier this year, H.R.

1309, "The High Risk Occupational Disease Notification and Prevention Act of 1985." There will be those who believe this is not the way to go; that the risk of disease because of exposures is just part of the job, that it is already being done by many companies and industries, or that this issue will be taken care of by the hazard communication standard developed by OSHA. There may be some truth in each of those rationales, but there is also a truth that American working men and women are suffering and dying because of workplace exposures. Those workers are dying of diseases that just might be cured if they were diagnosed at an early stage or prevented if alternative substances could be shown to be safer and then used.

Today's hearing is the first in a series of joint hearings by the Subcommittees on Health and Safety, and Labor Standards under the chairmanship of Mr. Murphy, on H.R. 1309. Because of the degree of interest in the bill, we have decided a series of hearings, one for each of several interest groups, including business, labor, government, health professionals, insurance, and others, is the most open means of gathering the information we seek as a committee and of allowing views to be presented as a matter of record.

Recognizing the time limitations we have, it has not been possible to invite every interested organization to appear before the subcommittee. With that in mind the subcommittee will accept statements and comments from groups that are unable to appear in person here before the committee.

The witnesses today represent the business community. We have Dr. Steven Lamm, a consultant in epidemiology and occupational health, speaking for the National Association of Manufacturers; Dr. Hubert Bonfili, senior occupational medical physician at Monsanto; and Dr. Talmage Holmes, manager of epidemiology at Dow Corning, representing the Chemical Manufacturers Association; Mr. Roy, Mr. Richter, Mr. Barnes, representing the American Mining Congress; George Campbell of Rockwell International; and Roscoe Evavold, speaking for the American Electronics Association.

That concludes my formal statement for which I wish to commend Mr. Holzman, the deputy staff director, who did a lot of research on that statement and who will be the person that any of our prospective witnesses or information seekers or news media will contact in the future. Mr. Holzman will be serving in that capacity temporarily for both committees, unless Mr. Murphy assigns a specific person, and we will await that decision on Mr. Murphy's part.

At this time, it is my pleasure to be working with Mr. Murphy, who is a tenacious legislator. I am glad he is here today. And hopefully, the joint committee will be very active in the near future.

Mr. Murphy.

Mr. MURPHY. Thank you, Mr. Chairman. I welcome the opportunity to join you as we conduct these joint hearings on H.R. 1309. The issue of worker notification is one about which both our subcommittees and the Congress are greatly concerned. I want to thank the representatives of industry. I know that the chemical industry has become increasingly aware of their responsibilities to the workers. We welcome you here this morning, gentlemen.

Thank you.

Mr. GAYDOS. Mr. Chandler, any opening statement?

Mr. CHANDLER. No, sir.

Mr. GAYDOS. I want to thank you for your presence. And we will call the witnesses.

The first witness is the National Association of Manufacturers, Steven Lamm, M.D., president, Consultants in Epidemiology and Occupational Health, Inc.

Alone or with an accompanying colleague, Dr. Lamm? Alone.

Welcome to the committee. And without objection, your statement as prepared will be made part of the formal proceedings in this matter, and you may proceed.

STATEMENT OF STEVEN H. LAMM, M.D., PRESIDENT, CONSULTANTS IN EPIDEMIOLOGY AND OCCUPATIONAL HEALTH, INC., REPRESENTING THE NATIONAL ASSOCIATION OF MANUFACTURERS

Dr. LAMM. Thank you, Mr. Chairman. It is an honor and a privilege to be able to meet with you this morning.

I have submitted already to the record my formal statement which deals with some of the concerns that I have as an epidemiologist with the bill H.R. 1309. As I have discussed in there, that the concept of notification is most appropriate and is supported. The issues that I specifically raise deal with the question of the scientific principles and basis for decisionmaking within the bill; and particularly with the definitions of "risk group" and the assumption, or lack of assumption, as to whether those definitions imply a causal relationship within the risk so defined.

I go on further to raise some questions as to what the positive and negative effects of a surveillance program will be and ask that all considerations to these factors be given with an assessment of any program so institutionalized.

Thank you.

[The prepared statement of Dr. Steven H. Lamm follows:]

Prepared Statement of Steven H. Lamm, M.D., Consultants in Epidemiology and Occupational Health, Inc., on Behalf of the National Association of Manufacturers

EXECUTIVE SUMMARY

1. The criteria in H.R. 1309 for definition of risk groups are insufficient and do not reflect a basis of sound scientific principles.

2. The criteria in H.R. 1309 do not clearly require a causal inference before action is taken. If causality is to be inferred, the finding should be scientifically sound and specific and based primarily on epidemiologic data.

3. H.R. 1309 is premised on a greater technological feasibility and effectiveness from medical screening or monitoring than those procedures have been able to deliver.

4. The determination of social action as contemplated by H.R.1309 should be in a public forum with review and decision making external to the agency responsible for delivering the information. H.R.1309 should require assessment of the positive and negative effects of the notification and surveillance programs.

October 9, 1985

Testimony of

STEVEN H. LAMM, M.D.

CONSULTANTS IN EPIDEMIOLOGY
& OCCUPATIONAL HEALTH, INC.

On

H.R. 1309, THE HIGH RISK OCCUPATIONAL DISEASE
NOTIFICATION AND PREVENTION ACT OF 1985

At the Request of the
NATIONAL ASSOCIATION OF MANUFACTURERS

Before The
SUBCOMMITTEE ON HEALTH AND SAFETY
COMMITTEE ON EDUCATION AND LABOR
UNITED STATES HOUSE OF REPRESENTATIVES

Mr. Chairman and members of the subcommittee. My name is Steven H. Lamm, MD. I am President of Consultants in Epidemiology and Occupational Health, Inc. As it is my understanding that all members of the subcommittee have received a copy of my curriculum vitae, I will not here dwell on my background. I would like to simply note that I have been professionally active in epidemiology for over fifteen years, including work in both the private and federal government sectors, and have written numerous articles in the field. I appear before you today to present my professional concerns as an epidemiologist with H.R. 1309, "The High Risk Occupational Disease Notification and Prevention Act of 1985" at the request of the National Association of Manufacturers (NAM).

The NAM, a voluntary business association of over 13,500 corporations, large and small, located in every state, has members ranging in size from the very large to over 9,000 manufacturing firms, each with an employee base of less than 500. The NAM member companies employ 85 percent of all workers in manufacturing and produce over 80 percent of the nation's manufactured goods. The NAM, through its Association Council and the National Industrial Council, is affiliated with an additional 158,000 businesses.

It is my understanding that the NAM will be submitting an additional statement for the record which will identify problem areas other than those addressed in my statement. While the National Association of Manufacturers opposes the bill as it is currently structured, the NAM, and I personally, support the concept that workers should be informed of the actual risks of contracting occupational diseases as a result of employments, particularly when early medical intervention can reduce that risk or at least ameliorate the tragic effects of such diseases. This is, of course, the main goal of H.R. 1309. However, I have serious questions as to whether the bill, as presently structured, achieves this goal and, in fact, suspect that certain adverse effects of the bill, if ever implemented, might outweigh any beneficial results. I base this conclusion on technical deficiencies with specific provisions of the legislation and with certain policy considerations. My analysis can be broken out into the following subparts:

OUTLINE OF TESTIMONY

I Insufficiency of criteria for definitions of risk groups
  A. Risk under H.R. 1309
  B. Statistically Significant Risk
  C. Absolute Risk
  D. Controllable Risk

II Insufficiency of knowledge for deciding on taking action
  A. Source of Information
  B. Causal Interpretation
  C. Analytic Refinement

III Technological Capabilities

IV Social Policy Issues
  A. Risk Assessment Board
  B. Risk of Notification

V Summary

TESTIMONY

I The Criteria in H.R. 1309 for Definition of Risk Groups are Insufficient.

A. The criteria of risk focused on by H.R. 1309 are limited to excess relative risk.

The bill provides that workers in a "population at increased risk" or "high risk" of contracting an occupational disease may be notified of such risk following a judgment of a Risk Assessment Board located within the National Institute of Occupational Safety and Health. A "population at increased risk" is defined as an "employee population exposed to hazardous occupational exposures within which an associated disease occurs at a rate 30 percent greater than a comparable worker population not exposed to the hazardous occupational exposure." A "high risk" group must have a 100% higher rate. Section 10(7) and (8).

The relative risk of a disease or condition in a group is the number of cases observed in a study group divided by the number expected, based on background rates. The background rates may come from those of the general population or from the ever employed population or from some special population. A normal relative risk is 1.0, excess risk, as used here, is the amount of relative risk greater than 1.0; thus, a risk ratio of 1.3 would be interpreted as a 30% excess risk; a risk rate of 1.8 would be interpreted as an 80% excess risk; and a risk ratio of 2.0 would be interpreted as 100% excess risk.

The usual manner of describing mortality (death) or morbidity (illness) risk among a worker population is by the calculation of a standardized mortality (or morbidity) ratio (SMR) for a cohort (group) of that population. Typically, this would produce a statement similar to the following:

> ..."Analysis of the 1940-1975 mortality experience of these workers indicates a lung cancer mortality of 50% more than expected if they had experienced lung cancer mortality at the same rate as the general population did, at rates specific for race, sex, geography, and calendar time. Further, with 95% certainty it is asserted that this difference reflects reality and not a chance distribution of the data..."

H.R.1309 appears to make the excess percentage between two such comparison groups the single most significant factor in determining when the notification and surveillance (in the case of "high" risk) provisions of the bill become triggered. It is this magnitude of excess percentage that the bill focuses upon to determine what society's response should be to the information within a study. Is this a sufficient basis? We suggest it is not.

B. The criteria for activating the notification and surveillance provisions should consider the uncertainty in the finding of excess risk.

The Section 10 criteria take no account of the uncertainty within the results and the uncertainty in the conclusion. If a single study shows an SMR=133, in other words an excess risk of 33%, should that be sufficient? I think not. It may be a matter of four cases observed where three cases were expected, or of one case observed where 0.75 were predicted. Standard epidemiologic practice uses a two-tailed test of statistical significance to determine whether the likelihood of the findings being different from normal is more than 95% or not. Such a criteria should be considered as a minimum. Yet H.R. 1309 fails to do this.

Standard scientific statements usually express a certainty of a finding, which H.R. 1309 does not do. If the criteria are to specify a determination that the risk is 30% or greater or 100% or greater, then the Board should be required to determine that, to a certainty of 90 or 95% , the risk is 30% or greater or 100% or greater. A single demonstration should not alone be sufficient.

C. The criteria for response should consider not only the relative increase in risk but also the absolute increase in risk.

For example, assume that one study is interpreted to indicate a twenty percent excess risk of lung cancer among a group of workers and another study is interpreted to indicate a two hundred percent excess risk of bone cancer in a different group of workers. Which group should be notified?

The first group has a twenty percent increased risk of getting lung cancer above a general population lifetime lung cancer risk of 0.058. Thus, the increased lifetime risk of this cancer would be 20% of 0.058 or 0.012. The second group has a 200% increased risk of getting bone cancer above a general population lifetime bone cancer risk of 0.001. Thus, the increased lifetime risk of this cancer would be 200% of 0.001 or 0.002. By the proposed criteria, although the first group is at six times the risk of getting cancer from their exposure as is the second group, the workers in the first group would not be informed, while the workers in the second group would be informed. Is this the intent of this bill?

As another example, the lifetime risk of non-melanotic skin cancer for men in Texas is about 0.38. An occupational exposure would have to increase the relative risk by only about 1/2 of 1% to have the same cancer risk (.002) as does the bone cancer example, and by only 3% to have the same lifetime increased cancer risk of 0.012, as did our example of lung cancer. However, it too would not lead to notification by the proposed criteria. Does this result make sense?

D. The proposed criteria should also consider the question of whether early medical intervention will have any beneficial effect.

The bill presupposes that notification and surveillance will lead to disease prevention. Yet the proposed criteria do not weigh the evidence on the basis of whether we have any life saving intervention to offer. That is, is it better to notify a worker about a mild risk for a condition for which we have a successful intervention than to notifiy a worker about a moderate risk for a condition for which we have no successful intervention.

The bill proposes that high risk groups would be placed under active surveillance or medical monitoring. Such a program is basically a screening program for early detection of a disease in the hope that medical intervention following early detection will ameliorate the progression of the disease. The efforts of surveillance should be focused on those conditions for which there is an effective intervention, which HR 1309 does not provide for.

For instance, in the examples cited, non-melanotic skin cancer is the only condition of the three for which a screening program is able to intervene in, and probably to reduce, the cancer mortality. In spite of our best screening procedures for lung cancer, screening programs do not demonstrably lead to reduced lung cancer mortality. Sputum cytology was used in the past as a screening method, but it was costly, ineffective and disliked. No effective program for bone cancer surveillance exists that I know of.

Since the purpose of notification and of surveillance is to do good, ie, to reduce the illness and death burden of workers, we should know whether such a benefit is indeed likely from the investment of personnel and financial resources that any such program entails. H.R. 1309 should require that surveillance priority be given to those conditions for which positive interventions are available.

We, thus, propose that the definition of risk for which response is sought should at least include considerations of statistical significance, absolute risk, and likelihood of actually preventing disease.

II. When is knowledge of risk sufficient for deciding on taking action?

There are many aspects to this question, all of which turn on the nature of the specific knowledge available and to whom it applies.

A. Upon what type of data should the determination of excess risk be based?

The proposal indicates that the Risk Assessment Board shall consider evidence from epidemiologic and clinical observation, from animal and laboratory studies, and from risk estimating studies. This basis is too broad. Rather, identification of populations at increased risk or at high risk should be limited to epidemiologic studies based on sound, accepted scientific principles, at the present time, because of the current "state of the art". Epidemiologic studies are, of course, based directly on actual human incidence data.

The proposal should not permit the determination or identification of "at risk" populations solely on the basis of animal, laboratory, or risk estimating studies (together or separately). Such an assertion would be based on an hypothesis and not on a demonstration of fact. There is a proper role for the consideration of clinical studies and animal and laboratory studies. That role is as supporting or conflicting evidence of an assertion of a causal inference.

It is an underlying asumption that any epidemiologic study that shall serve as a basis for the actions considered in this proposal shall have been well conducted, be methodologically sound, and have been audited and assessed by a group outside oof the initial investigators. None of these above discussions have any value if the data are not reliable or have not been fairly collected, analyzed, and reported.

B. Is a causal inference necessary before action can be taken?

It is unclear whether the bill intends to extend notification (and surveillance) to studies showing an increased (or high) risk regardless of whether a causal connection with the workplace or an exposure can appropriately be made. It may be the desire of the Congress to notify (or conduct surveillance of) groups "at risk" whether a causal interpretation has been inferred or is not inferrable. If the latter is desired, then it is unclear why the proposal is limited to occupational groups. It is clear, in any case, the criteria for notification in H.R. 1309 does not, in any scientific sense, require that evidence of causation be present before notification is given.

If it is desired that notification and surveillance be limited to those circumstances in which causality has been inferred, then the bill should so state. In that case, specific aspects of an epidemiologic association that should be especially considered before reaching conclusions regarding causation should include those first laid out twenty years ago by Sir Austin Bradford Hill. (Proceedings of the Royal Society of Medicine 58:295-300, 1965).

These factors include:

1. **Strength of Association** (ie, magnitude of effect observed) - Strong or large effects are more likely to be causal; weak associations are more likely to reflect confounding of many factors.

2. **Consistency** (Reproducibility) - Do different studies and methods reach the same conclusion?

3. **Specificity** - The narrower the type of effect observed and the more limited the population considered, the clearer the data argue in favor of causation. (This point will be elaborated upon later when we discuss refinement of data analysis.)

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2. **Consistency** (Reproducibility) - Do different studies and methods reach the same conclusion?

3. **Specificity** - The narrower the type of effect observed and the more limited the population considered, the clearer the data argue in favor of causation. (This point will be elaborated upon later when we discuss refinement of data analysis.)

4. **Temporality** - It is an inviolable condition of the concept of causation that the cause precede the effect in time. The duration of this interval is sometimes called the latency period and varies for different effects.

5. **Biological Gradient** (Dose-Response relationship) - If the exposure is the cause of the effect, then groups with greater exposure are predicted to have more affected members or more severely affected members.

6. **Biological Plausibility** - Here is the role of animal and laboratory studies to provide supporting evidence of a mechanism or basis for a causal relationship.

7. **Coherence** - The causal hypothesis should not produce a conflict with the natural observation of the distribution of the exposures and the effects and the general tendency of observations from other points of view, and

8. **Intervention** - This concept basically reflects one of the original Koch's postulates on causation that reduction or removal of exposure should lead to reduction of frequency of effect.

The definition of "population at...risk" appears to require known exposure to hazardous occupational exposure. This would seem to be an indication that a specific hazardous substance must be identified and that worker exposure to this substance is known. However, the definition of "hazardous occupational exposure" does not require that exposure to the hazardous substance is known or in fact even that there by any specific known hazardous substance in the workplace. The absence of a need to specify a "cause" makes it more difficult, though not impossible, to make a causal inference. If notification is to be made in the absence of a causal inference, then the notification itself should not imply a causal inference. Rather, it should indicate that an increased risk for a certain condition has been observed and the worker should be aware. If a causal inference is asserted, then the specific nature of the toxin and the employee's exposure to it needs to be defined and documented. The risk description should reflect the limits of the magnitude of exposure that is associated with a 30% (or 100%) excess risk.

D. How specifically is this population at risk to be specified for what action?

An actual example from an epidemiologic study will show the importance of this evaluation in determining which subgroups should receive what governmental response. In this case, the mortality experience of a company's employees had been assessed and showed an excess risk for lung cancer of 75%. Is it proposed that all persons ever employed in the plant should be notified, but no one placed under surveillance? Is this to be extended to employees in all plants in the industry? To employees of all (industrial) customers of that industry?

Next, analysis showed no excess risk (i.e., the relative risk was less than one, the number of cases observed was fewer that those expected) for those hired since 1940 and observed for up to 38 years, while the excess risk for those hired prior to 1940 was 140%. Based on the current proposal, all those hired prior to 1940 should be placed under surveillance. Notification of those hired later would have been erroneous.

Further, among those hired prior to 1940, the excess risk was 610% for those hired in 1925 or earlier and 77% for those hired between 1925 and 1940. Does this indicate that only those hired in 1925 or earlier should be under surveillance and the 1925 to 1940 hires should only be notified but not placed under surveillance? Further analytic refinement needs to consider the levels of exposure of different worker group and their variety of exposures and experiences. Care has to be taken to assess the specificity of the association so that the appropriate causal interpretation can be made. These questions are important. In the example above, the processes and ingredients used at the plant were different during each of these three periods and thus the causal inferences differ.

Yet H.R. 1309 does not direct the Board to ask this question. The question remains -- When has sufficient analytic refinement been conducted to justify taking action?

In sum, epidemiologic studies should serve as the basis for identifying "at risk" populations. The function of animal and laboratory studies should be to support (or refute) a causal interpretation as the basis for the "at risk" determination. Analysis should be refined to the point that a clear and specific finding is evident. Basic scientific principles should be sustained before a causal interpretation is made. Again, it is an underlying assumption that any epidemiologic study that shall serve as a basis for the actions considered in this proposal shall have been well conducted, be methodologically sound, and have been audited and assessed by a group outside of the initial investigators. None of these above discussions have any value if the data are not reliable or have not been fairly collected, analyzed, and reported.

III Technological Capabilities

The many technical issues above relate to Congressional intent with respect to what is meant by excess risk (qualitatively and quantitatively) and what is the threshold of information that must be exceeded to induce administrative action. After clarification of the above, it remains to be seen that the fields of medicine and epidemiology can deliver? That is, what is the "state of art" of medical or epidemiological assessment, screening, and intervention with respect to the request being made? It appears that all three of these areas currently lack both the technical feasibility and the resources to carry out the ultimate purpose of the proposal.

Furthermore, while the direction of these proposals is socially compelling, a considerable literature has been developed that questions the effectiveness or utility of screening programs. Except possibly for diabetes and hypertension, screening for chronic diseases has rarely demonstrated its utility. Professor

Morrison's recent book "Screening in Chronic Disease", (Oxford University Press, 1985) reviews much of the methodology problems and the assessment of its utility. (A copy of that book has been submitted to the Chairman of the subcommittee).

IV Social Policy Issues

In addition to technical issues, certain social policy issues in the proposal are of concern. Two issues to be considered follow:

First, if a Board is constituted with the responsibility of judging that a causal inference is to be made from epidemiologic and other data, the Board should be independent of those responsible for the studies.

Second, what are the risks of risk notification? What are the consequences of failing to notify a worker truly at an increased risk, and what are the consequences of falsely notifying a worker of an increased risk when it really doesn't exist?

A. Risk Assessment Board

The bill apparently provides that the Board shall assess occupational epidemiology studies, validate or certify their conclusions, and assess the social significance or consequences of such studies. Recognizing that a large proportion of the studies under consideration will have been either conducted by NIOSH, or funded by NIOSH, it appears inappropriate that the assessment of these studies in the public interest should be within NIOSH. While, of course, NIOSH should be in a position to assess, interpret, and defend its own studies, the forum for the assessment of their utility should be external to NIOSH. That forum should be open to the public with opportunity for presentation of alternative assessments and analyses of the data and recommendations of actions to be taken. That assessment and the actions that follow are not solely technical issues, but require also social input and balance from external sources, such as independent scientists, labor organizations, industrial groups, professional associations, consumer representatives, government representatives, etc.

B. Risks of Notification

The decision to notify individuals directly of risks they are presumed to have is a "medical" intervention. As such, consideration has to be given to both its ethical basis, and its positive and negative utility. Professor Goldsmith has recently (Fourth International Symposium on Epidemiology in Occupational Health, September 10, 1985) discussed these ethical issues (abstract attached). He also raised the issue of the conditions which justify causing discomfort, hazard, or anxiety to workers or their families.

As the benefits of screening programs for chronic diseases may be few, we should concentrate our efforts on those conditions for which we can offer a positive intervention. An example might be where a smoking cessation program may decidely reduce the lung cancer risk of workers who had previous asbestos exposure.

Additional positive benefits from notification would be that workers might tend to change their behavior both at subsequent worksites, or away from work, to more "healthful" habits, e.g., improve self-protection from worksite exposures, stop smoking, etc. This, however, is only a hypothesis of outcome. A possible alternative hypothesis would he that workers might respond by thinking that "as long as I already have a time bomb going off inside me, I may as well say to hell with safe habits." This, too, is a hypothesis, but either outcome is possible, and the "real" outcome is unknown.

One probable consequence of risk notification is that the worker, his family, and his associates may, as a result, view him differently. Whether that change is beneficial or not is questionable. Does such information appropriately or inappropriately change his behavior, his perception of life, and his employment opportunities? What is the response of future employers to this information?

It must be recognized that there will be "false positive" risk notifications, i.e., times when workers are told there is an increased risk, but it doesn't really exist. The adverse consequences to those falsely notified of risk, as well as to those who are notified of true risks but are not personally destined to get the condition, follow from their self and others' perception of their being different, of their leading a life "under a black cloud". This perception can change their expectation of life and their life plans. Further, they either have to hide this information or their future insurability and employment may be affected. Furthermore, if a medical surveillance or monitoring program (even though funded by others) is involved, the worker will still have related increased costs plus distress and anxiety and risk of damage either directly from the testing procedure or from follow-up of aberrant results. For instance, there will be a definable risk from a regularly scheduled x-ray program. The above are all personal costs that the worker will bear from notification. The DHHS April 1985 statement "Risk Assessment and Risk Management of Toxic Substances" specified that "means to accomplish this goal (reduction or elimination of public health risks) should not pose additional significant risks" (page 5). The same should apply to this proposal. The proposal should include the necessity oof assessing the utility of the required actions.

There is also a public risk that is raised by the proposal, ie, a public perception of "crying wolf too often." Additionally, does the magnitude of effort that would be required by H.R. 1309 really reflect the intervenable fraction of disease reduction. The proposal states as a finding that this program will really substantially reduce "the staggering cost of medical treatment and care" Section 2(12). Will it? I doubt it.

V Summary

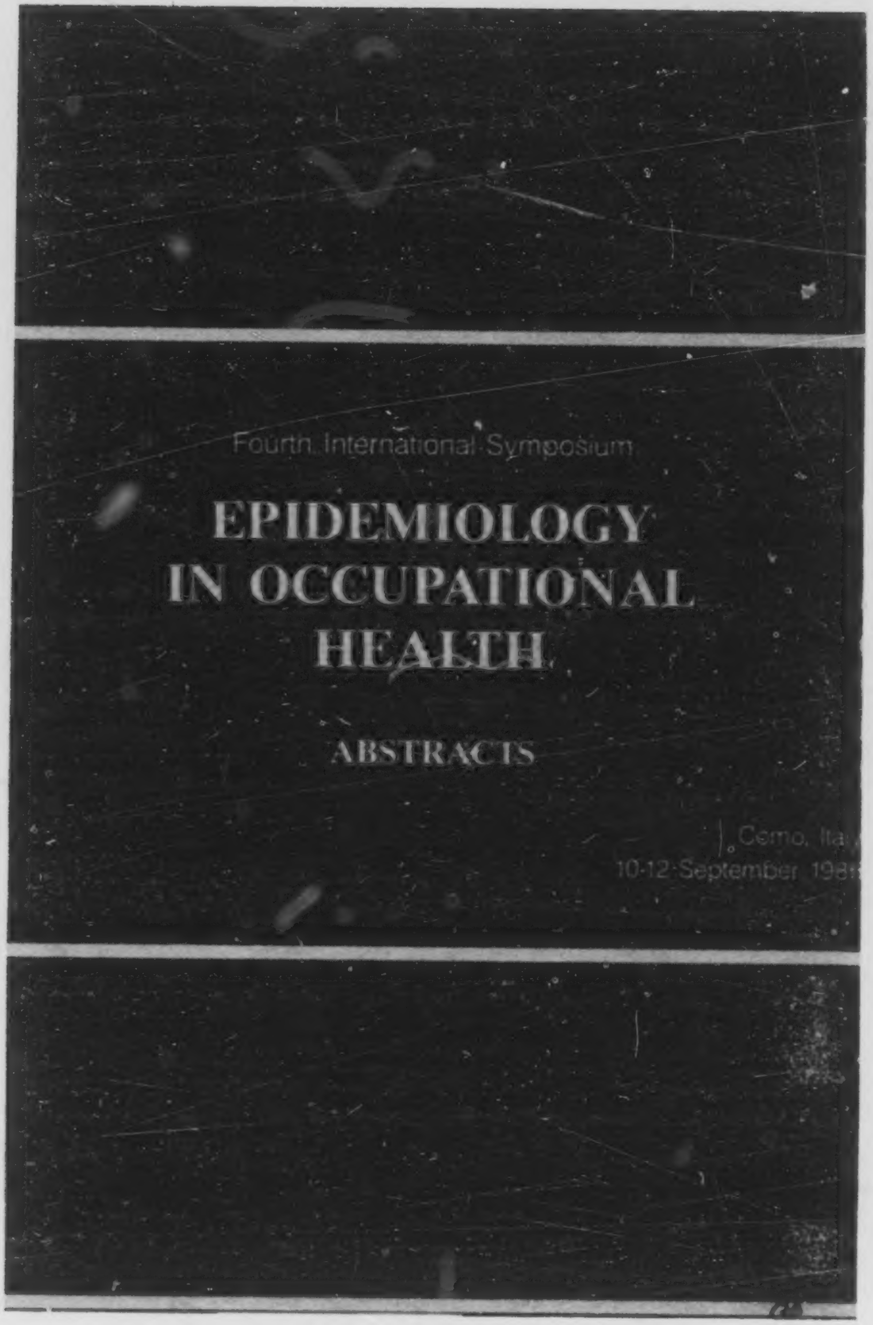
In summary:

1. The criteria in H.R. 1309 for definition of risk groups are insufficient and do not reflect a basis of sound scientific principles.

2. The criteria in H.R. 1309 do not clearly require a causal inference before action is taken. If causality is to be inferred, the finding should be scientifically sound and specific and based primarily on epidemiologic data.

3. H.R. 1309 is premised on a greater technological feasibility and effectiveness from medical screening or monitoring than those procedures have been able to deliver.

4. The determination of social action as contemplated by H.R.1309 should be in a public forum with review and decision making external to the agency responsible for delivering the information. H.R.1309 should require assessment of the positive and negative effects of the notification and surveillance programs envisioned.



Fourth International Symposium

EPIDEMIOLOGY
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ABSTRACTS

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ETHICAL PROBLEMS IN OCCUPATIONAL EPIDEMIOLOGY

R. Goldsmith, R. Israeli

Ben-Gurion University of the Negev Faculty for Health Sciences

P.O.B. 653
84105 Beer Sheva
Israel

As scientific work involving human subjects, occupational epidemiology involves risks to those subjects. In addition to the "Helsinki Principles" there are unique problems in both occupational health and in occupational epidemiology, including:

I. Should any contact with a worker concerning his or her health be considered an "intervention" and as such require the deliberate and objective weighing of potential risks and benefits to the subject ?

II. Notwithstanding the primary obligation of occupational health services, including occupational epidemiology, to the health and well being of the individual worker, what are the obligations to employers, other workers, and the residents of the industrial community ?

III. Do not the workers have a right to know what hazards they are exposed to and what they may do to minimize these hazards ? When uncertainties about hazards justify epidemiological studies on what basis and when should they be resolved ?

IV. Under what circumstances should tests and inquiries concerning health status of a worker be treated less confidentially than similar data for non workers ?

V. What are the justifications and conditions for using tests and inquiries likely to cause discomfort, hazard or anxiety to workers or their families ?

VI. Who has the right to see and evaluate collective results (in which the data relevant to individual workers or their families cannot be identified) ?

VII. Should workers and/or their representatives be entitled to participate in the planning and evaluation of epidemiological studies and of monitoring and screening activities, based on epidemiological considerations ?

VIII. How can we be sure that test results which are relevant to a worker's health will be communicated promptly and interpreted clearly ?

IX. How can we protect workers' rights to care and, if justified, compensation for work related injury or illness by appropriate use of occupational epidemiology ?

X. How can we alter laws and regulations which may conflict with acceptable ethical principles ?

Curriculum Vitae

STEVEN H. LAMM, M.D., DTPH

President
Consultants in Epidemiology
& Occupational Health, Inc.
2423 Tunlaw Road, N.W.
Washington, D.C. 20007
(202) 333-2364 (202) 965-5266

EDUCATION:

London School of Hygiene and Tropical Medicine, London, England 1974; DTPH (Diploma in Tropical Public Health)

University of Southern California School of Medicine 1964-1968; M.D. (Medical Doctorate)

University of Southern California Graduate School 1963-1964; M.S. (Biophysics) Nerve Action Potential Conduction

University of California, Los Angeles 1961-1963; B.S. (Chemistry) Radiation Chemistry

Reed College, Portland, Oregon 1959-1961

Fairfax High School, Los Angeles, California

PROFESSIONAL AWARDS:

Permanent Commission and International Association on Occupational Health, Member 1984

American College of Preventive Medicine, Fellow 1983

American Academy of Occupational Medicine, Member 1983

American Conference of Governmental Industrial Hygienists, 1983

American Board of Preventive Medicine,
in Occupational Medicine, 1983
in Preventive Medicine, 1975

American College of Epidemiology, Charter Fellow 1982

American Industrial Hygiene Association,
Occupational Medicine Committee, 1982
Epidemiology Committee, 1981
Vice-Chairman, 1983

American Industrial Hygiene Association Journal, Editorial Review Board, 1981

American Occupational Medicine Association, Member 1978

American Academy of Pediatrics, Fellow 1976

American Board of Pediatrics, 1975

Royal Society of Tropical Medicine, Fellow 1974

Annual Prize of the Society for Epidemiologic Research, May 1972

PROFESSIONAL ACTIVITIES:

Past Secretary-Treasurer
Society for Epidemiologic Research
2423 Tunlaw Road, N.W.
Washington, D.C. 20007

Clinical Assistant Professor of Pediatrics
Georgetown University Medical School
Washington, D.C., 20005

Adjunct Assistant Professor of Preventive Medicine and Biometrics
Uniformed Services University of the Health Sciences
4301 Jones Bridge Road
Bethesda, Maryland 20814

PROFESSIONAL EMPLOYMENT:

1980-1981	Occupational Physician and Epidemiologist Chief Executive Officer Professional Consultants in Occupational Health, Inc. 7720 Wisconsin Avenue, Suite 205 Bethesda, Maryland
1977-1980	Occupational Physician and Epidemiologist Tabershaw Occupational Medicine Associates 6110 Executive Boulevard, Suite 740 Rockville, Maryland
1976-1977	Private Practice of Pediatrics Pleasant Hill, California
1974-1976	Senior Epidemiologist Epidemiology Branch, National Institute of Child Health and Human Development National Institutes of Health Bethesda, Maryland
1972-1975	Lecturer in International Health and Consultant in Family Planning Development Administrators Training Program University of Connecticut Hartford, Connecticut
1971-1973	Medical Director, Middletown Free Clinic Middletown, Connecticut
1970-1972	Epidemic Intelligence Service Officer from the Centers for Disease Control Atlanta, Georgia Attached to the Connecticut State Department of Health, Department of Preventable Diseases, and the Connecticut State Tumor Registry

PUBLIC CONSULTING ACTIVITIES:

1983	Consultant in Epidemiology, Office of Civil Rights, U.S. Department of Justice
1977	Consultant in Birth Defect Epidemiology, National Center for Health Statistics
1975	Chairman, Symposia on Bioethics in International Health, APHA, Chicago
1974	Participant and Speaker, Population Tribune, World Population Conference, Bucharest, Rumania
1973	USAID Consultant in Family Planning Training, for Korea, Thailand, Bangladesh, and Pakistan
1972	Vaccine Morbidity Studies in Amazonian Indians, Yale-PAHO
1971	Short-Term Consultant on Cholera to the Phillipines, World Health Organization
1968	WHO/USPHS Smallpox Eradication Program, Kaduana, Nigeria

RESIDENCY - PEDIATRICS:

1972-1973	Albert Einstein College of Medicine, New York, New York: Special Project: Lead in Infant Formulas
1969-1970	Montreal Children's Hospital, Montreal, Quebec, Canada: Special Project: Electronmicroscopy of Heart Muscle

INTERNSHIP - ROTATING:

1968-1969	University of Oregon Medical School Hospital and Associated Clinics

PUBLICATIONS:

1. "Effects of Bilary Obstruction on Serum Amylase and Lipase Activity," Cucci, Hiyashi and Lamm, Epatologia, 12:829--36, September/October, 1966.

2. "Education Problems in U.S.A.," Lamm, Lancet, 1:839, April 18, 1970 (letter).

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13. "Genetic and/or Environmental Etiologies of Congenital Malformations: An Epidemiological View," Hoffman and Lamm, American Journal of Epidemiology, 102:456, 1975 (abstract).

14. "Reactions to Rubella Vaccine and Persistance of Antibody in Virgin-Soil Populations after Vaccination and Wild-Virus-Induced Immunization," Black, Lamm, Emmons, Pinheiro, Journal of Infectious Diseases, 133, No. 4: 393-8, April, 1976

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16. "Blood Lead Concentrations Among Formula-Fed and Breast-Fed Infants," American Journal of Epidemiology 104:312, 1976 (abstract).

17. "Nutritional Status of Brazilian Kayapo Indians," Black, Hierholzer, Lamm and Lucas. Human Biology, 49:139-53, 1977.

18. "Recording of Birth Injuries and Malformations of Infants," Lamm, American Journal of Obstetrics and Gynecology, 125(6):879, 1976 (letter).

19. "Protection of Children in Automobiles," Lamm, British Medical Journal, September 4, 1976, 582, (letter).

20. "Blood Lead Concentrations in Formula-Fed and Breast-Fed Infants," Lamm and Rosen (under editorial review).

21. "Time Trends in Cause-Specific Infant Mortality Rates - U.S.A., 1968-74," Lamm, American Journal of Epidemiology, 106:234, 1977 (abstract).

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23. "The Design of a New Data Base for the Study of Congenital Malformation Epidemiology," Lamm and Leaverton, Proceedings of the American Public Health Association Meeting, 105:119, 1977 (abstract).

24. "Benzene and Leukemia," Tabershaw and Lamm, Lancet, 11:866-7, 1977 (letter).

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Mr. Gaydos. Mr. Murphy.

Mr. Murphy. I have no questions, Mr. Chairman.

Mr. Gaydos. Mr. Chandler.

Mr. Chandler. I have no questions.

Mr. Gaydos. Dr. Lamm, we have reviewed your testimony, particularly Mr. Holzman and myself. And reading through it, the one item that struck us, both of us simultaneously, was upon which among the writings and commentaries on benzene and leukemia and the health hazards of formaldehyde did you base your conclusion in these commentaries that you had? As far as the relationship between benzene and leukemia is concerned, how did you reach your conclusions? And what hazards did you find posed by exposures to formaldehyde? If you will respond to that.

Dr. Lamm. Gladly. I concluded that the evidence indicated that benzene most likely caused leukemia in workers exposed to levels above 100 parts per million. I concluded, in the formaldehyde studies, that the evidence of the mobile home studies indicated no dose response relationship between the level of exposure and the frequency of complaint within the mobile homes.

Mr. Gaydos. Just as a matter of passing fancy and a point of interest, and I don't cite this for any factual proof as to what we are looking for, but Congressman Murphy and myself are from an area where coke is manufactured, cooked and manufactured. He up in the Monessen area and I am down in the Clairton area. And I want you to know that I was born and raised in an area no more than a mile or two from the coke plant. And of course, you know, one of the byproducts of coke is benzene, and I am just wondering if Mr. Murphy and I are susceptible or should we be worried, taking some special precautions, or how does that affect us?

I am really serious in a way, because we do have a large population squeezed in close to those production facilities. I would like to have your expert opinion on that.

Dr. Lamm. I understand your point. You asked about risks from the exposures at the coke ovens. I think that the benzene levels you will find, any reasonable distance away from the battery itself, are very small and close to background. The risks that may be run would be those from coke oven emission exposure. I have done a lot of work myself in analyzing the data on that and demonstrating that dose-effect relationship between coke oven emissions and the risk of lung cancer to workers on the coke batteries. We have presented our work at scientific fora and before the Science Advisory Committee of the EPA demonstrating quadratic risk function between the level of exposure of coke oven emissions and the risk of lung cancer. It is for those reasons that I urge that control of the exposures of the batteries be strengthened and that the exposure levels be brought down.

Mr. Gaydos. One more little personal question.

Dr. Lamm. Yes.

Mr. Gaydos. On the hillside located directly opposite to these batteries all of the vegetation has passed away. What is left is brown, and what is not left has already died. Should that be a point of concern?

Dr. LAMM. I think it is a point of concern and that proper investigation should be noted as to two aspects. One, if the exposure is responsible for it, and two, what aspects of the exposure might be.

Mr. GAYDOS. I can say this, too, to be fair in the factual situation to which I refer. That after certain procedures were carried on as far as new strippings and the coke ovens, some other procedures, that the vegetation has regenerated itself, spontaneously I imagine. No one went up and planted anything. So apparently some of the controls, or a large number of the controls are working to the effect that at least that has been eliminated. That can be done?

Dr. LAMM. Yes. I think you can look at many of our major cities. I have been in and out of Pittsburgh many times over the last 20 years, and one is certainly impressed with the changes that have occurred in the quality of the air in that environment.

Mr. GAYDOS. Thank you. That is good news because Mr. Murphy and I both are from that area, and we are quite proud of the geographical location.

Let me ask you another question for the record. I take it from your statement that you believe occupational risks should be determined only by the epidemiological studies. Do you believe this is the only system that is viable, and what do you believe is wrong with animal and laboratory studies? Which would you choose, and is there room for both?

Dr. LAMM. I think that the decision that the human group is at risk and demonstrating effect from an exposure should be based on human data. I think that the role of animal studies is to support the interpretation of a causal relationship between the exposures under consideration and the disease noted.

Mr. GAYDOS. Well, maybe you might respond to an inquiry as to what extent are new substances tested before being considered safe enough to be integrated into a manufacturing process? How does that work?

Dr. LAMM. I think the concept of premarketing testing is that the appropriate studies would be done, and if they are suggestive that there might be a risk from biological exposure to those that the products are not brought onto the market. I think in circumstances where we have human exposure from products that have been in the market or have been manufactured for many years, I think the place for us to look is at that human exposure, at that human evidence, and see whether we find evidence sustaining what is suggested in animal studies.

Mr. GAYDOS. Would those tests include animals or strictly laboratory work? Which is accepted procedure? What would you recommend?

Dr. LAMM. Are you talking about premarketing?

Mr. GAYDOS. No, I am talking about the toxicology tests.

Dr. LAMM. Well, I think the toxicology tests can be used as flags of issues of concern for things that where one has an experience of apparently safe exposure to chemicals. In such circumstances one, I think, should look at the experience of the people who have used the product, of the people who have manufactured the product and see whether there is evidence in there to sustain the concern that has been raised by the animal data.

Mr. GAYDOS. Again, are you saying that you could within a reasonable accuracy predict as to what the short, intermediate, and long-term effects of a substance would be on men and women that are handling it?

Dr. LAMM. You can raise hypotheses based on the animal data, but the appropriate response then is to see whether the evidence of those people exposed would sustain it.

I submitted a 1-page list of data to the committee which I think might reflect on this, as an example of the type of problems that I see. Do you have that?

Mr. GAYDOS. Yes, we have it.

Dr. LAMM. This is a study that has recently been performed under Government contract by a research group of a chemical where there has been exposure to it for over 40 to 50 years. It was a rat study demonstrating that the rats developed an excess of lung cancer. A study was done on the workers within the industry represented, the industry manufacturing that compound. I present here the results of that study.

I, also, in the final column, look at what my interpretation that H.R. 1309 would require for a response to each one of those bits of information within there.

Mr. GAYDOS. Doctor?

Dr. LAMM. Yes.

Mr. GAYDOS. We have had, myself and others, a general discussion and we have all concluded it is very difficult to understand the data from the "Mortality Study of Workers Exposed to ABC Nitrate"—that is the heading you have on it. Is that right?

Dr. LAMM. Yes.

Mr. GAYDOS. Could you have a little patience with us and just explain to us how this works, so that we can study it? We are not getting the explanation.

Dr. LAMM. It is my intention to do so.

Basically, a mortality study of this sort is done by assembling a list of all the workers known to have had that job or be exposed, then obtaining their date of birth, their date of hire, how long they have been exposed, finding out at the end of the study whether they are alive or deceased, obtaining the death certificate, and then counting how many deaths from each cause occurred, using various statistics of national data in order to calculate if the workers were dying at the normal rates for those, how many would be expected to have died.

So that in this report here you see that over this period of time 164 deaths were observed where 127 were expected, for an SMR or relative risk of 1.29, which was statistically significant, from which one could conclude that the statistically significant excess risk of mortality within this work group. Based on H.R. 1309, because the cutoff is 130, there would be no notification following from this.

Mr. GAYDOS. No notification?

Dr. LAMM. No notification.

Going to all cancers, 22 cancers were observed where 25 cancers were expected. So the observation is less than expected, and therefore there would be no notification. Within digestive cancers, however, there were 9 observed and 6.9 expected, so that one would read that as a 31 percent excess risk. That is not statistically significant. It is just the way the data happens to flow. And based on the bill, as I read it, it would require notification to these workers that they are at an excess risk of digestive cancer. There is not information in this data to indicate that.

Going on to lung cancer, it was the rat data that suggested that there was a risk of lung cancer. In fact, this is a group who were followed for 40 years, so there is a long enough latency observation for those considerations. Seven cases were observed, nine were expected; so they have less than the expected mortality of lung cancer. So, if one would have notified them on the basis of the rat data that they were at risk of lung cancer, the actual data indicates that thee is no evidence to that. So that would have been a false notification.

Continuing on, one would notify them that they have an increased risk of dying from diseases other than cancer. The rule would require that, but that is, in essence, a meaningless statement.

Continuing, one would see that there is an excess risk of deaths from heart disease, from stroke, from eschemic heart disease, from rheumatic heart disease, from circulatory. Now these risk numbers, I will get back to that. Likewise, there is a risk from other heart disease.

Continuing on, one finds that there is a relative risk, if one looks at genital-urinary disease, one sees that these workers have more than 100 percent excess risk, according to the bill, of genital-urinary disease and therefore should be placed under surveillance.

Finally, that the workers had a statistically significant what the bill would call high risk of death from accidents, poisoning, and violence. So that if one set as a criteria even that the finding must be statistically significant this group would come under surveillance for the purpose of accidents, poisoning, and violence, which are not the type of diseases that is our expectation to be placing under surveillance for worker occupational diseases.

The result of this—this is just an example that crossed my desk—is to demonstrate how I, as an occupational health physician and epidemiologist, would find the constraints and specifications in this very restricting in allowing me to really make the epidemiological judgments of risks that would be appropriate to this.

Let me go a bit further. The bill specifies that we should look at the risks with respect to worker risks as opposed to the general population. The theory of that is about the "healthy worker" effect, which applies for the 10 years after initial employment and applies to cardiovascular disease. It does not apply, for instance, to cancers. The risk of cancers do not show a "healthy worker" effect.

With respect to heart disease, if I use the relative risk in workers as my comparison, circulatory disease would not reach over the 200 mark, eschemic heart disease would not reach over the 200 mark, rheumatic heart disease would reach over the 200 mark. So I would conclude, using that standard, that the workers should be followed for concern of rheumatic heart disease.

Now there is nothing in the workplace that causes rheumatic heart disease. Rheumatic heart disease is the complication of infections that workers have had when they were between 5 and 8 years old. As a result of getting a strep throat, and having from this the development of rheumatic heart disease. We are seeing here the complications of people from, if you will, risks that they have brought into the workplace and not diseases that are occupational in nature.

If the standard with that reference were to go into effect, I would find myself having to tell the workers that they should be placed under surveillance as an occupational disease for rheumatic heart disease, for urinary problems and bladder problems, and for accidents, poisoning and violence. I don't really think that that is the real intent of the bill. If you really look at the information in this study here, the one significant finding is that they have a significant excess risk of eschemic heart disease. And it is very rare that a group of workers are found to have an increased risk of myocardial infarction, which that basically is. So that when I look at this study, which I would consider a positive study, and I would say that the risk of these workers with respect to myocardial infarctions under certain surveillances I might recommend that would fall out of the surveillance program that the bill defines, and would have the efforts directed in terms of areas that (*a*) are not occupationally induced and (*b*) would have a low payoff of what it is that I would expect I would be able to do about that.

Therefore, what I would like to see would be definitions that look at the risks in the studies and focus in on (1) what are real findings, as opposed to statistical numbers, and (2) what are the findings for which an intervention program—a notification and intervention program can lead to a reduction of the disease burden on the worker and on his family.

I have given in my written comments a number of examples of programs in which one could notify or choose not to notify and where there are benefits and advantages from either side.

Next, I would like to point out that the epidemiological literature recently has been paying close attention to the question of what is the efficacy of medical monitoring and the efficacy of screening programs. We are finding that much of the treatments, both for preventive medicine—and let us think of a surveillance program as medication or as a treatment program in the field of preventive medicine. That many of the treatment programs that we have recommended for both preventive medicine and for curative medicine have been found to be ineffective, have been found to cause more problems in the long run for the people under surveillance than the absence of such a program.

You may recall that we used to recommend with respect to surveillance for breast cancer mammography. It was then found that the pickup rate on this procedure was so low for women under 50 or 55 that the risks from the radiation and from the whole process exceeded their risk of breast cancer. Likewise, in last week's issue of Lancet there is an article in there, and I have copies of that for the committee, dealing with breast self-examination as a preventive medicine treatment program. And it concludes that breast self-examination may be detrimental in women under the age of 30 because of the great number of surgeries that are ended up performed for malignant conditions, for people who end up with a sense of security that they do not have breast cancer which then develops in spite of the examination program, and it is recommended in there that that training program be withheld, or be retained only for those who are over 30 or 35 years of age.

We have had the same thing in lung cancer surveillance. In the workplace, we used to recommend doing sputum cytologies. We found they were nonproductive. We found—one, workers didn't like them. We couldn't get workers to produce a good sputum cytology; and two, the information in there did not help you in terms of identifying people with lung cancer who would not have been identified otherwise.

So that one of my strong recommendations to you, in addition to including in here a criteria of an evaluation of the probability or some measure of the likelihood that good will be done, that there also be within here responsibility to evaluate the effectiveness of any treatment program. What is being proposed is a specific preventive medicine treatment program, so that that program itself can be assessed and modified, in order to make sure that the personnel and other resources are directed to the greatest payoff, reducing the health burden, the disease burden on workers, on their families, and on the general American public.

Mr. GAYDOS. Doctor, let me ask you a practical question. Following as I understand as a whole, you are suggesting that the bill is not the right approach to addressing this problem. But I think, No. 1, am I proper in presuming that you do agree with the committee that there is a problem? Would that be a proper presumption? That in our various industrial activities in this country there is a problem, in some areas?

Dr. LAMM. There exist many problems in the industry.

Mr. GAYDOS. All right, now assuming there is a problem, and, as you say, many problems. It could be different types of diseases. Because I can't understand why you included in your little chart here accidents, poisons and violence, but I will get to that later on.

Dr. LAMM. OK.

Mr. GAYDOS. But there is a problem with diseases, assuming that.

Dr. LAMM. Yes.

Mr. GAYDOS. I have been trying to follow you on your suggestion that there be a proper evaluation and to determine effectiveness, which you think should be determined before you do anything.

Let me ask you, if there is a problem or there are many problems out there, what is your suggestion to the committee? We don't profess that this is the answer, the bill that was suggested. But I want to glean from your testimony just what you think is the answer and how would you approach it if you had the legislative power to put something in being. What would you do? Strip it down to its basic essential. How would you do it? How would you attack the problem?

Dr. LAMM. OK.

Mr. GAYDOS. For us laymen to understand.

Dr. LAMM. One, I would make a distinction between a program for those people who are currently in the employment of consideration from those people who are no longer in that employment. For those people who are in that employment, the No. 1 consideration, if you have identified an exposure that is causing a problem, the No. 1 responsibility is to reduce that exposure; then to evaluate those people who have ongoing recent exposure with it, and those you will find in the employment of whatever your concern is.

Mr. **Gaydos**. If I may stop you there.

Dr. **Lamm**. OK.

Mr. **Gaydos**. Let us take the case, a typical case that I referred to in my opening remarks on mercury.

Dr. **Lamm**. Yes.

Mr. **Gaydos**. Let us use mercury. Assume that we have identified the problem of mercury in a certain manufacturing activity. OK.

Dr. **Lamm**. Yes.

Mr. **Gaydos**. Now, following your theory you are suggesting, you would do what? No. 1, you would separate those that have gone?

Dr. **Lamm**. First, I would go in there and measure the exposure levels.

Mr. **Gaydos**. Right.

Dr. **Lamm**. One, I am presuming that we all agree that (a) there does exist a health problem there and (b) that it is due to mercury exposure.

Mr. **Gaydos**. Yes, let us assume that.

Dr. **Lamm**. OK. That is a large assumption.

Mr. **Gaydos**. It is a large assumption?

Dr. **Lamm**. Yes.

Mr. **Gaydos**. Isn't mercury by nature a very dangerous substance, if you don't watch yourself?

Dr. **Lamm**. Mercury can cause certain problems. But I could well see a group of mercury workers, where the mercury is under good containment, and there are other problems——

Mr. **Gaydos**. All right. I think that is proper. OK, go ahead.

Dr. **Lamm**. Assuming that we have that appropriate causal relationship, one, is to go in there and measure the exposure of mercury and control the mercury exposure, including determining whether alternatives to mercury can be used for whatever that process is. Second is for examining the people who are in the employment and, one, having the assessment made of the type of problem that you are dealing with, how do you expect to observe the problem, in what group do you expect it to occur, and what is it that you have to offer to the individuals within that.

I would start off first by examining the people within the workplace. You have not told me, for instance, if this is an acute condition, if this is a disease condition with a long latency, whether it is a disease condition with a long latency in which we can offer some intervention to prevent the disease from occurring, whether it is a disease due to the accumulation and we can recommend avoidance of further exposure. Those are the types of questions that I would be asking.

Mr. **Gaydos**. Go ahead.

Dr. **Lamm**. OK.

Mr. **Gaydos**. Right to that point, is it so bad or is it improper or do you think it would be just wasteful thinking on our part that we should provide for some kind of a notification and some kind of an examination? Is that a waste of money, in your opinion, or time and effort on the part of our specialists?

What about our bill? Is it so bad? Is it so far off target that we wouldn't, under those conditions notify, give a simple notification—

that is what it calls for—notify you are dealing with a hazardous substance? Now maybe some people aren't being exposed, but at least they are notified to be careful. Is that so bad?

Dr. LAMM. Well, one, it doesn't make sense to me to notify somebody to be careful about an exposure they no longer have.

Mr. GAYDOS. Yes, but you outline a very, very complicated type of procedure to go in there and start lining them up, taking tests. We went through the Mine Act where we had reluctancy on the part of miners. And even when we asked them to take an x ray, they refused to take it. Because they were going to lose their job.

Dr. LAMM. Right.

Mr. GAYDOS. And they were afraid of an x ray and didn't want to take it.

Dr. LAMM. That is what this bill is proposing.

Mr. GAYDOS. I know. But can't we give them a notification? And once they are notified, then isn't it proper to give them some type of an examination. I know there is a reluctancy there. We have had that experience. But I can't understand your procedure being any different or any more effective. And I can't understand the justification of the position you are taking saying that we are wrong in this bill. That is what I am looking for.

Dr. LAMM. Where I am focusing in on is a criterion for determining that a risk exists.

Mr. GAYDOS. Right. OK.

Dr. LAMM. That is where I think the major critical problem exists.

Mr. GAYDOS. Wouldn't that be for our administration, under the language of the bill, as to the methodology that would be used or put into practice, the procedure, what have you? You know, the bill doesn't call for any affirmative——

Dr. LAMM. The bill specifies very specifically that as soon as a group of workers has been demonstrated to have more than a 30-percent excess relative risk.

Mr. GAYDOS. You say that is wrong?

Dr. LAMM. Yes.

Mr. GAYDOS. Oh, all right.

Dr. LAMM. And I give you as an example——

Mr. GAYDOS. I was listening to your point. You say that is wrong. You say that it is a wasted and ineffective type of provision.

Dr. LAMM. I am saying that it is not specific enough. That in epidemiologic circles when we deal with a test for a procedure the two questions that we deal with and evaluate is how specific is it and how sensitive is it. And my concern is that the present definition of risk is both insensitive to focusing in on where the real risks are and inspecific in identifying as risks things that I think we would agree would not be risks.

Mr. GAYDOS. OK.

Dr. LAMM. That is the crux of where my concern there is.

Mr. GAYDOS. All right. Can you go further as to other areas of concern that you have in the bill, Doctor?

Dr. LAMM. The other area that I do raise is that I think that in terms of social policy that the decision as to what social action should be taken as a result of epidemiologic studies is a decision that should be done outside of the organization responsible for the conduct of those studies.

Mr. GAYDOS. Any other points of departure from——

Dr. LAMM. No, those are my——

Mr. GAYDOS. Those are the main points?

Dr. LAMM. Yes.

Mr. GAYDOS. Any member of the committee? Mr. Bartlett, do you have any questions?

Mr. BARTLETT. Mr. Chairman, to follow up on a question that you had——

Mr. GAYDOS. Sure.

Mr. BARTLETT [continuing]. I might, from a layman's viewpoint, try to get at the chairman's question a different way.

If I were a private patient that just came to see you as a physician for, say, an annual physical examination. And I told you my occupation was in an area that may be identified in this bill: working in a mercury factory or something like that. Would you then, as a physician, in an annual physical, would you conduct some tests just based on the fact that my occupation may be in one of the areas cited in this bill, or would you not? How would you treat that as a physician?

Dr. LAMM. I would inquire what your experience in that exposure had been. And by knowing the toxicology and the medical history of these various exposures, make an assessment as to whether there were tests that I could do that would either measure the body burden, like a blood-lead test, or that would measure an effect, like taking an x ray, or doing a pulmonary function test. But that specific decision would be dependent upon knowing what the complications of such exposure had been demonstrated to be.

Mr. BARTLETT. So as a private physician with a private patient, you would still make that decision on an individual case basis, rather than just simply based on what the occupation is; is that what you are saying?

Dr. LAMM. Yes.

Mr. BARTLETT. In your judgment, and I assume that you work a good deal in these areas of occupational health, I wonder if you could describe in layman's terms generally what kind of progress are we making in the workplace, say, over the last 10 years? Also, what kind of progress do you expect us to make, assuming that this bill or similar legislation is not passed, what kind of progress in terms of occupational health do you expect to be made in the next 10 years? In short, absent Federal legislation are the problems being resolved, and how rapidly?

Dr. LAMM. I think there is a role for the Federal Government. I think that considerable progress has been made over the last number of years in occupational health. I think with the introduction of OSHA and the various standards—an agency that at times has been enforcing the regulations, that companies have been bringing the exposure levels down. Generally speaking I think that the quality of work environment in the major corporations is quite good compared today with 20 or 30 years ago. That there are obviously areas for improvement.

Personally, I feel one of the areas where we ought to concentrate for improvement is in the area of ergonomics, the area of designing equipment to better fit the human body. Hammers with handles that work, where the wrist is not constantly at a false angle and developing carpal tunnel syndrome. Chairs that fit appropriate to the people. We are learning a lot more about the social environment of the workplace that is affecting the way in which we design.

I think we have a large number of small companies that have not instituted what I would consider appropriate occupational chemical exposure controls or management and concern of the health of the workers within.

Mr. BARTLETT. Thank you, Doctor. Thank you, Mr. Chairman.

Mr. GAYDOS. Mr. Chandler.

Mr. CHANDLER. If I may. The question occurs to me following your response to Mr. Bartlett and the earlier questioning about a mortality study done under the terms of H.R. 1309 you would find yourself in a situation where at one plant there may actually be a risk to the workers perhaps because of inadequate ventilation or whatever problem, while at another plant that problem wouldn't exist and the risk would be much less? However, I am wondering does H.R. 1309 require the notification of those workers in the plants where proper care is taken to avoid risks because of this other plant doesn't?

Dr. LAMM. One, there is nothing in H.R. 1309 as I read it that requires a determination that the risk was due to some exposure, either identified or unidentified exposure, in the workplace, merely the demonstration that there exists a group of workers defined by some employment characteristic, by some job title characteristic, or by some presumptive chemical exposure characteristic, who has in one study demonstrated an excess relative risk of 30 percent or greater. I think that is far too low a standard.

Mr. CHANDLER. When you analyze statistics, do you find that perhaps between workplaces, while the constant of exposure perhaps to a chemical or substance of some kind in the workplace there will be variables that will affect the health of these workers? In other words, Pittsburgh, they will be smoking like crazy and getting lung cancer——

Mr. GAYDOS. No smoke in Pittsburgh anymore. [Laughter.]

Mr. CHANDLER [continuing]. While at home in the great Pacific Northwest they don't. Yet, they are getting lung cancer because of smoking and not because of exposure.

Dr. LAMM. There are a number of studies that have demonstrated that the risks in a community of lung cancer are primarily determined by the frequency of smoking in the various districts in that area. There is a well-known study from California, for instance, that concluded that there was an excess risk of lung cancer to people who lived downwind from the petroleum refinery plants in the Los Angeles Basin. Subsequent analysis by the same investigators, looking more specifically at the cases rather than looking at the geographical distribution, concluded twofold: one, you have the people who work within the plant live close to it, and so that it is the in-plant exposure that they have; and two, that the smoking experience of the people living close to the plant was far greater than in the comparison areas. You have that type of multifactorial thing.

The other thing, I gave an example of a study which has recently been published in which an industrial plant mortality study was done and concluded that there was an excess of lung cancer. And since the plant in the total was known by the name of one the products made there, the risk was attributed to that product. Later, when one looked at the work histories of the people in that plant, one found that the real risk occurred to those people who were hired in the plant prior to 1940, and for people observed for over 40 years thereafter who weren't in the plant prior to 1940 there was no excess of lung cancer. There were 10 cases of lung cancer found where 13 were expected. When you looked at the history of the plant, you found that the company changed its feedstock in 1940 and that there was a contaminant in the feedstock prior to 1940 at a high level that was in it at a much lower level, reduced 80 percent after 1940. The risk I attribute in that workplace is to that contaminant.

Now, I think it would be appropriate to notify and to place under surveillance the people who worked during the period when that contaminant was there in a high place. To reach the conclusion that it is a primary substance that caused the exposure, that caused the lung cancer, I think is a false conclusion. To move forward and to notify the workers hired since 1940 that they were at risk of lung cancer is a false notification. To label the product made over the total period as carcinogenic and then to notify the people who use the substance to beware, that this thing can cause cancer and so on and so forth, I think is a false notification based on that information.

And so I think it is very important to hone in and make that decision.

Mr. MURPHY. Will the gentleman yield?

Dr. LAMM. I will be glad to yield.

Mr. MURPHY. I would just like to ask you about your statement that a 30-percent trigger was too low in incidence. At what percentage then would you say that the trigger should be?

Dr. LAMM. My objection was not specifically to the number 30 or the number 100. One, I would suggest that if a number is chosen it would be a scientific basis for choosing that number. I know of none for either of those numbers.

Mr. MURPHY. Even at 100 percent.

Dr. LAMM. Well, OK, what is more important to me first is the decision as to what you mean by being demonstrated. One, I would like to know that it is statistically significant. Second, I would like to know that to a reasonable degree of certainty you can say that the risk is 30 percent or greater.

Mr. MURPHY. If you have 100 percent, isn't that a reasonable degree of certainty?

Dr. LAMM. Not necessarily. If you expected statistically a third of a case and one case showed up, you have a 200-percent excess. There is no statistical certainty in that. If you had in one plant, let's say you expected 10 cases and you found 30 cases. Yes, that is statistically significant. And in that plant the excess risk I can demonstrate statistically is certainly greater than 30 percent. We know that to a strong statistical probability, and based on that we may move forward. But we need the totality of the information in order to make that assessment.

Mr. GAYDOS. Doctor, do you know the old—I just want to explain to the doctor the old adage about statistics——

Dr. LAMM. I was afraid you were going to say that.

Mr. GAYDOS [continuing]. And a drunk leaning on a lightpost: mainly for support and not illumination.

Dr. LAMM. Yes.

Mr. GAYDOS. That is the identification of statistics. But go ahead.

Mr. CHANDLER. We need to find some way to protect people from risks as much as possible, and then—and I don't mean to put you down, but you come in here and just confuse the hell out of us with all this numbers stuff and make me feel like, well, it is impossible to ever figure out a rational way to do this.

Is that what you are telling us? Or what are you saying? You know, in one sentence, can we do this or not? What is your conclusion?

Dr. LAMM. My recommendation to you would be that you study the matter or ask NIOSH to study and report back to you after assessing its feasibility, and trying to direct its focus to the areas where you are most likely to make a benefit to the health of the worker.

Mr. CHANDLER. Do you feel that we would find that there are plants that deal with certain substances, obviously asbestos would come to mind, and others that would be readily identifiable, that if you work in a place that deals with that stuff you are under a much higher risk of certain diseases?

Dr. LAMM. Is it the intent of this bill that if a study shows group of workers having in excess of 30 percent that the people who are to be notified is to be limited to the people who are in that plant who are in that study? Is it the intent of the bill that it is to be limited to those people who are in the plant in which the study was conducted? Is it the intent of the bill that notification be extended to those in the same industry as the plant which was studied? Is it the intent that notification be extended to everybody who has any workplace exposure or potential experience with that substance?

It is unclear to me how far this notification is planned and within it the determination—one starts out by saying one will notify all those at risks of greater than 30 percent. Now you may have a plant that 40 years ago had exposure levels 10, 100 times higher than what people are being exposed to at the present time. That that group may have had a 30-percent excess risk. Even if you went through the mathematical modeling or whatever, assuming a linear relationship, you might then conclude that people with today's exposure have at most, say, a 1-percent increased risk, or a tenth of a 1-percent increased risk.

Is it the intention of this bill that those people should be treated as if they had a 30-percent risk? These are the sorts of problems that I see and the intent that is not clear to me.

Mr. CHANDLER. I understand that. I didn't write the bill, so I don't know what the intent of it is.

Dr. LAMM. Right.

Mr. CHANDLER. But I also know that there are people out there cleaning out TV sets with carbon tetrachloride; and there are people who used to work around asbestos, maybe still do, and don't realize the risk. Hell, we used to unload bags of fertilizer. If you dropped them, it would blow up a freight train. You know, that kind of stuff.

Dr. LAMM. Right.

Mr. CHANDLER. This is a good, patient man here——

Mr. GAYDOS. Gee, thanks.

Mr. CHANDLER [continuing]. Who is trying to do the best for workers. And if there is something wrong with the bill, I think he is interested in how it can be improved. Me, too. I don't want to turn loose some God-awful thing that is going to create this mindless bureaucracy out there running around with statistics that we don't, any of us, understand and notifying people who aren't at risk; telling them they are when they are not. All that kind of stuff.

But how do we get to the point where we can tell somebody and their employer and labor union that you are working with something that is really dangerous and you ought to watch your own health, you ought to watch how you work with it? How do we do that? If this isn't any good, what is?

Dr. LAMM. One, I think one should make a clear distinction between those people who are working in a dangerous environment with a dangerous substance and those people who are no longer exposed. And I see the focus of this bill really toward those people who are no longer exposed, those people who have had prior exposure and are not accessible to the employer.

With respect to taking care of people who have current exposure, the rules are there. OSHA exists. NIOSH does its studies. I am not specifically sure that when NIOSH has completed a study whether they have a right to send a copy of that paper to everybody who is in the employment or such, but I don't think that the level of notification that you really have in mind here—I think the critical concern is for people who once had exposures no longer have those exposures and are not readily accessible to the employer of exposure, so that the employer would be able to have internally a surveillance or protective notification program.

When you are dealing with people who are currently exposed, I think you have got a different situation than this really would deal with, and that I think that we have the laws on the books and the powers of the agencies in order to deal with that.

Mr. GAYDOS. Doctor, if I may suggest to you, and I do want to admit this: That I am going to have to go over your testimony because I am now just understanding it. We are going to make an attempt to study it and apply it to the bill as we have it written. Because to be fair to you, you lost me at the beginning and I just couldn't, you know, connect the two up.

But let me suggest this to you on past exposures.

Dr. LAMM. Yes.

Mr. GAYDOS. And I happened to be involved at the time when we passed OSHA and have experienced its application, its deficiencies, and I would have to conclude as a reasonable person and based upon the record, that OSHA as it now exists, as it is written in the law and as it is enforced is very weak, to say the best, at discerning prior exposures, which happen to be a matter of debate whether they should or should not be addressed.

And to substantiate what I say, I refer to Hopewell, VA, where we had the Kepone incident that occurred while OSHA was in effect, and you know what happened there. The James River, today you still can't eat fish out of it. There is a ban on it. The children that were exposed from the workers, and even this case that I cited in my opening statement on the mercury just to show you. And here OSHA is in effect, and these things continue. And that is what this bill is aimed at; to get this vacuum or this part that we haven't been doing too much with over the years.

Dr. **Lamm**. I don't see this bill as being effective in that direction. No. 1, when you talk about the small, let's say your mercury example where you talk about the small employer. Nobody has a record of knowing who were the employees in the various industries that made use of this substance over the previous years. One may be able to define the industry today. One may be able to identify the people who were in a study of a particular plant. But to be able to move forward from saying mercury is hazardous and these are the specific hazards, to move forward from that and say someone is authorized and directed to go and notify every worker who ever worked with mercury, that is just an impossibility.

Mr. **Gaydos**. Well, let me suggest this to you, Doctor, and I do respect your position as a doctor and statistician, your background, your training—I strongly suggest to you that I can't agree with you based upon my past experience and exposure to the procedures of NIOSH and all the difficulties we had in passing the act. I question your conclusion that you can't go back and find out what a man's prior exposure rate has or has not been, and that there is no mechanical or practical way of doing it. That is the point of contention. We think there is, and within reasonable bounds. I know there is no perfection involved, but the fact remains that we are going to have to do some of that.

They said that OSHA, when we passed it, was going to be impossible to enforce. It has its deficiencies. It is working after a fashion. Maybe in some areas not as effectively as others, but it can work.

And the bill, as it is outlined now—and we are ready to change it and accept amendments if they are substantiated. But just because you say and you conclude that you can't go check back doesn't necessarily make it so. And I say that with all due respect to you, you know, as a professional.

Dr. **Lamm**. I don't disagree with you. I think, yes, it is technologically feasible to find out the work history of a man whom you know and find out what his previous exposures are, and that is very important. And one of my major fights with NIOSH over the last few years has been their failure in almost every study to consider what people's prior work history has been other than at the plant under consideration. So that is an issue that I am very sensitive to.

Mr. **Gaydos**. Well, if I may interrupt you, and I do it respectfully. If you feel that they should do that, why on earth would you be taking a position here and saying, and I think I understood you correctly, that it is impractical to check a man's prior history.

Dr. **Lamm**. No, no, that is not what——

Mr. **Gaydos**. Exposure.

Dr. **Lamm**. No, what I said is I don't see it as feasible to go back and identify all the people who have ever worked with some substance. I don't think that the records to do that—if you know the man's——

Mr. **Gaydos**. The bill doesn't call for that. Don't forget this bill has to be administered, and it is going to be administered in a practical vein, as we have experienced it, just like any other bill written. And I don't think it is going to be interpreted, the administration is going to interpret it to do unreasonable things or confiscatory things.

Dr. **Lamm**. That is why I was asking what the extent is——

Mr. **Gaydos**. I think you raised the right question. I think you properly raised it.

Dr. **Lamm**. As I understood Mr. Chandler's question, that his expectation is that a result of this is anyone who has ever worked with asbestos is going to be notified of that, anyone who has ever worked with mercury as such is going to be notified of that. (*a*) I don't see that as feasible and (*b*) I don't see that as coming out of this type of bill. I see an overextension. And that if one is going to talk about these risks, one has to be very careful about defiing the boundaries of the group within which one knows that that risk occurred.

Mr. **Gaydos**. I understand now, and I don't want to be argumentative with you. I understand now what we are talking about.

Let me just for the record place this in. When I mentioned the mercury situation, just for the record, Vermont has an OSHA statute and the company involved, the name of it is Stayco, is in Vermont. The Vermont job safety records show that 1975 wasn't a good year for Stayco. In the spring of that year the company was cited by the State Occupational Safety Agency for mercury overexposure, inadequate engineering devices to control mercury exposure, and insufficient availability of medical personnel. The company paid an $800 fine. Inspectors returned later that year and again found excessive mercury levels. Stayco paid a $75 fine. More citations for mercury overexposure followed in 1977. Inspectors also found the company permitting employees to eat in areas where mercury is used, and Stayco paid another $1,000 fine. It goes on and on. Tells about the children, tracking the mercury home. It got into all the homes and the children were exposed to it. I mean, the workers tracking it home.

Dr. **Lamm**. Yes, I understand.

Mr. **Gaydos**. So I cite that to substantiate my statement on the record, which I suggested to you. In all honesty, I just suggest to you for your consideration that OSHA at best, under all the circumstances, and budget limitations and what have you, and the current language in the act, just can't do these things. We feel in these joint hearings that we are looking for an approach, an avenue, some type of a change, hopefully, to identify, to monitor, hopefully prevent any exposure, or the acceleration of it and all of the ramifications, meaning high costs to the employer, high insurance costs. See, that is what we are talking about.

Dr. **Lamm**. I understand it. But from what you read me first I have not heard you tell me about any disease condition that was found either in the workers or in the children as a result of the exposure.

Second, you are obviously pointing out there a firm who is in violation of the OSHA standards. Or is it your indication that on the basis of that evaluation that all workers in plants who use mercury and have been consistently using it within the OSHA standard and within good control should be placed under surveillance and notification? Is that the intent?

Mr. GAYDOS. No; the intent of this act is to fill the void where OSHA has been unable, as I mentioned before, under existing language to do what we want to do in this new act. We think that OSHA right now with its existing language and the way it is administered, isn't doing what should be done under the circumstances. That it is ineffective in this area. And there could be a million reasons why it is ineffective.

We think that this language, this new act, is necessary because as of right now this is not being done. Nobody is doing it, and we feel it should be done. It is that simple.

Dr. LAMM. Well, I think that this is being done in certain aspects within NIOSH: For instance, NIOSH has its dioxin registry where it has gone forth and defined one exposure and then gone forth and identified the plants where that exposure has occurred, the working population, and has placed them under surveillance. I think I would look upon programs like that as a model. If that is what you want to institutionize, the fact that it exists already in NIOSH would suggest that the laws already permit that and the question may only be one of funding and not of legislation.

Mr. GAYDOS. All right, Doctor, I have no further questions.

No further questions?

Thank you so much for your sincere testimony. I hope you didn't misinterpret some of the questions as being of an argumentative nature. That is not the reason for this hearing, though sometimes it does occur.

But I do want to ask you if you would be so kind, after we have had a chance to analyze what you have said—and we will do it very carefully and apply it to the facts because you did use some technical terms and a new approach—as to respond to any interrogatories we may send to you as further explanation?

Dr. LAMM. I would point out that I live here in Washington, that I am always available to your committee and the staff, and I would be most pleased to work with you in trying to develop a program that will institutionize and improve the health of the workers.

Mr. GAYDOS. We are going to take you up on that, and counsel will be in touch with you. And let me conclude by saying you are a very persistent witness.

Dr. LAMM. Thank you.

Mr. GAYDOS. Thank you. The Chair calls Mr. Bonfili, senior occupational medical physician from Monsanto, and Mr. Holmes, manager of epidemiology of Dow Corning Corp.

Gentlemen, welcome to the committee. Without objection, I will make your statement as submitted part of the official record. And if you want to sum or you want to go into a question and answer series, you suit yourself, and you proceed the way that best suits your purposes.

Mr. **Chandler**. Mr. Chairman?

Mr. **Gaydos**. Yes, Mr. Chandler.

Mr. **Chandler**. If I may, just a housekeeping affair to place something in the record. After the last hearing the question of cost of notification was raised, and our staff has contacted the Social Security Administration to inquire about that cost. We do have a response, and I would like to place that in the record.

Mr. **Gaydos**. Could you hit the highlights?

Mr. **Chandler**. Essentially, there is one problem. That the Social Security Administration does not necessarily have the address of current employees, and that is the first problem that they point out. But that for one mailing it would be in excess of $1½ million, for one mailing to all of the current beneficiaries whose addresses they do have.

Also, a complication in that is that not all recipients receive their check in an envelope anymore, they use the direct deposit. So it isn't possible to notify everybody with a stuffer, so that accounts for some of the additional cost.

But I thought this would be of interest to the committee, the response.

Mr. **Gaydos**. Without objection, let us make it a part of the formal record.

If I may, Dottie, ask you to make a copy available to all of the members without them having to go into the record. I think it is important information, and I want to thank my colleague for being so observant, with his staff, in making that available to the committee. I think it is very, very important.

Without objection, it will become part of the record.

[The information follows:]

SUBJECT : CHECK STUFFER ON OCCUPATIONAL DISEASE FROM HAZARDOUS MATERIALS—INFORMATION

In response to your request for the estimated cost of notification of individuals in high-risk occupations as contemplated in H.R. 1309, the "High Risk Occupational Disease Notification and Prevention Act of 1985," it is not clear to us exactly what role SSA would or could play in accomplishing such notification, since we have had no experience in such efforts in the past. There is a real question about how useful our records would be, since detailed historical employment information is available only in manual files and since current address information is available for beneficiaries, but not for those who are still working.

What we do have some experience with is the issuance of general notices in the form of check stuffers for all current beneficiaries. In 1978 SSA sent a message regarding health risks from asbestos to all beneficiaries. The cost of a similar check stuffer recently was estimated to be:

Stuffer with message on one side	$72,000
Stuffer with message on two sides	76,000
Special self-mailer to direct depositers	250,000
Postage for self-mailers	1,280,000

Unless legislation specifically requires that SSA fund the stuffer, we would expect to be reimbursed by the appropriate agency for all expenses involved. (In 1978 we were reimbursed by PHS and NIH.)

It is important to emphasize that these costs represent the mailing of one notice to all beneficiaries on a nationwide basis. Costs could be substantially higher if SSA were required to identify and notify nonbeneficiaries or if we were required to issue the stuffer more selectively, assuming that selective issuance were technically feasible.

Mr. **Chandler**. One other point.

Mr. Gaydos. Yes.

Mr. Chandler. I think it is just worth mentioning for those who will appear before the committee in the future. The staff informs me that the witnesses today provided their testimony in advance of the hearing, giving them a chance to analyze it and prepare questions. I am sure they appreciate it; I certainly do.

Mr. Gaydos. That is the rule of the committee, but unfortunately many of our citizens don't abide by the rules, for many reasons. I can understand that. But it is most sincerely appreciated by the committee and the committee staffs. It allows for more proper questions on points to be asked. And we want you to know it is very convenient for us. But if it can't be done, we understand, too.

But thank you, and I think you should be commended as a matter of record.

OK, gentlemen.

STATEMENT OF HUBERT F. BONFILI, M.D., SENIOR OCCUPATIONAL MEDICAL PHYSICIAN, MONSANTO CO., ACCOMPANIED BY TALMAGE HOLMES, PH.D., MANAGER OF EPIDEMIOLOGY, DOW CORNING CORP., REPRESENTING CHEMICAL MANUFACTURERS ASSOCIATION

Dr. Bonfili. Mr. Chairman, I have a brief oral summary on the written statement that was submitted.

Mr. Chairman, and members of the subcommittee, I am Dr. Hubert Bonfili, senior occupational medicine physician with Monsanto. I am appearing before you today to present the views of the Chemical Manufacturers Association on H.R. 1309, the "High Risk Occupational Disease Notification Act of 1985." Also, testifying with me on behalf of CMA is Dr. Talmage Holmes, epidemiologist for Dow Corning Co.

CMA is a nonprofit trade association whose member companies represent more than 90 percent of productive capacity of basic industrial chemicals in the United States. CMA and its member companies share this committee's longstanding commitment to the prevention of occupational disease and the fundamental right of all workers to a safe and healthful working environment.

CMA, in keeping with its commitment, supported and advocated the development of an effective hazard communication standard by the Occupational Safety and Health Administration. The standard encompasses appropriate labeling of toxic substances, warnings, and employee information and training. We have, in the past, worked with this subcommittee to ensure a strong standard. We are confident that the hazard communication standard can be an effective vehicle for minimizing the risks of worker exposure to toxic materials and ensuring that workers are adequately educated in the handling of these substances.

The programs and initiatives which have characterized the chemical industry's response to workplace and public health concerns reflect a few well-defined premises and objectives which we believe form a sound basis for action. These premises and objectives, which are detailed in our written statement, and are relevant to the proposals in H.R. 1309, include differentiation between actual risk and potential hazards; informing workers of exposure to hazardous substances and training workers to avoid risk; identifying worker study populations of the results of studies that suggest a relationship between adverse health effects and specific worker exposure; continued research to promote better understanding of the health effects of potentially toxic materials and the effective communication of the results of research; and last, continued use of employer-sponsored health surveillance programs to determine whether a hazard presents a risk in the study population.

While CMA's commitment is compatible with the spirit and intent of H.R. 1309, our careful review of the bill leads us to the conclusion that this proposal contains provisions which are technically unsound and others which duplicate authorities in existing laws.

We have two general concerns about H.R. 1309. First, CMA does not agree with the findings of the bill which are advanced to establish the need for congressional intervention. These findings assert, as a matter of fact, that today large numbers of workers are seriously afflicted with occupational disease, and that little is being done to protect them from the hazards or to convey adequate information concerning these hazards to workers. CMA does not believe that these findings paint a scientifically accurate picture or reflect a current appraisal of the risks facing today's workers.

Second, CMA does not believe that H.R. 1309 will truly advance the causes of workplace health and disease prevention. As I note more specifically in the remainder of this testimony, most of the initiatives proposed in H.R. 1309 are already underway. These are good, carefully thought out programs that combine government, science, and industry in a concerted effort to respond to occupational health concerns.

Our written statement addresses in detail our concerns about the specific provisions of the bill. I will briefly summarize some of those concerns.

CMA believes that the provisions requiring NIOSH, through a risk assessment board, to classify workers into "high risk" or "increased risk" categories are not technically sound. These classifications are to be based upon arbitrarily defined increased incidence standards. Our written comments expand on our concerns and discuss the limits of epidemiological inquiry.

CMA does not believe that the use of irreducible eligibility norms, the freehand extrapolation of data collected in one population to predict the health effects expected in another population or the uncritical reliance on any available data, including laboratory or animal studies, forms a scientifically valid methodology for identifying the actual risks confronted by a particular worker.

The trigger mechanism in H.R. 1309, which is based upon excess incidence data, cannot be scientifically justified. To the extent that the bill requires the extrapolation of data from a study group to other populations, it reflects a scientifically invalid methodology. We note also that the prescriptions for action in the provisions are designed in such a way that public participation in the decisionmaking process is not contemplated.

The bill directs NIOSH to notify individual workers within a class or category of employees that they are at risk of contracting an occupational disease. For the most part, this task imposed upon

NIOSH does little more than duplicate the responsibilities imposed upon chemical manufacturers and other employers by the OSHA hazard communication standard and the employee exposure and medical records access rule.

For the reasons noted in our written statement, CMA firmly believes that it is the employer which must assume the responsibility for the evaluation of workplace risks and the communication of necessary information to exposed employees.

CMA supports medical monitoring, surveillance of workers at actual risk, early medical intervention and prompt and appropriate medical treatment. Indeed, most CMA member companies already have well-designed programs to accomplish these objectives. But again, we also believe that the employer is better positioned to evaluate the need for and design and implement programs to be directed at any particular work force, and that the need for Federal agency intervention in this area has simply not been established.

While the foregoing statement makes clear CMA's concern with some of the specific proposals contained in H.R. 1309, it must be emphasized that CMA would support a well-designed initiative to aid in achieving our mutual goals of preventing occupational disease and responding to the needs of workers who are exposed to hazardous materials at the workplace.

CMA wishes to continue our cooperative and fruitful relationship with this subcommittee and believes that our joint efforts should be at this time more productively channeled toward the enhancement of existing programs, the identification of any real problem areas, and the search for sound solutions where needed.

Thank you very much for your consideration of our views.

[The prepared statement of Dr. Hubert F. Bonfili follows:]

PREPARED STATEMENT OF DR. HUBERT F. BONFILI ON BEHALF OF THE CHEMICAL MANUFACTURERS ASSOCIATION

INTRODUCTION

The Chemical Manufacturers Association (CMA) welcomes the opportunity to testify on H.R. 1309 - the "High Risk Occupational Disease Notification and Prevention Act of 1985." CMA is a non-profit trade association whose member companies represent more than ninety percent of the productive capacity of basic industrial chemicals in the United States.

CMA and its member companies share this Subcommittee's long standing commitment to the prevention of occupational disease and to the fundamental right of all workers to a safe and healthful working environment. As Dr. Bruce Karrh of the Dupont Company stated in his testimony of July 17, 1985, before this Subcommittee, a significant number of chemical manufacturers have elaborate ongoing toxicology, epidemiology, and individual worker surveillance and information programs. These are designed to identify increased risks and facilitate prompt intervention to minimize or eliminate these risks wherever they are found. A 1983 survey of the chemical industry done by Peat, Marwick and Mitchell showed that 100 percent of the respondents had industrial hygiene programs in manufacturing and that nine out of ten have formal policies that address health and environmental concerns. */

CMA, in keeping with its commitment, supported and advocated the development of an effective Hazard Communication Standard by the Occupational Safety and Health Administration

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*/ The study, entitled "A Survey of Chemical Company Activities to Reduce Unreasonable Risks," was commissioned by CMA and released in February of 1983.

(OSHA). The standard encompasses appropriate labeling of toxic substances, warnings, and employee information and training. We have, in the past, worked with this Subcommittee to ensure a strong hazard communication standard. CMA also supports the further expansion of the scope of coverage of the standard to include employers outside the manufacturing sector and we are prepared to continue to make our resources and experience available to the Subcommittee in the pursuit of this important objective. The OSHA Hazard Communication Standard will be implemented beginning on November 25, 1985, and will be fully operational six months later. We are confident that it can be an effective vehicle for minimizing the risks of worker exposures to toxic materials and ensuring that workers are adequately educated in the handling of these substances.

CMA has also initiated an ambitious program to increase public and employer access to up-to-date information about hazardous chemicals. The National Chemical Response and Information Center (NCRIC), which will be in place by year's end, includes four separate initiatives sponsored by CMA and its members. NCRIC programs build upon and expand the existing CMA Chemical Transportation Emergency Center capabilities to assist employers and emergency response personnel in responding to chemical emergencies and in focusing on the adequate training of employees in the safe handling of hazardous substances. Included among the NCRIC initiatives is a Chemical Referral Center (CRC) which will provide non-emergency information on chemicals and their hazards to the general public, employers, and any employee. The Center may be accessed by calling a toll free "800" telephone number.

CMA PREMISES

The programs and initiatives which have characterized the chemical industry's response to workplace and public health concerns in recent years reflect a few well defined premises and objectives which we believe form a sound basis for action. To the extent that these premises are relevant to the proposals contained in H.R. 1309, we would like to share them with the Subcommittee.

o Life in today's world unavoidably brings all of us into contact with potential hazards which may cause harm under certain circumstances. However, exposure to these hazards alone does not invariably present significant risk to human health. CMA believes that progress toward our mutual goal of disease prevention must focus on understanding the circumstances within which a risk is present and ultimately on reducing the risk to acceptable levels.

- To avoid the creation of high risk conditions, workers should be adequately trained to safely handle hazardous substances.

- Workers who may be exposed to hazardous substances should be notified and instructed on ways to prevent circumstances which may present unacceptable risk.

- Research findings that responsibly suggest a previously unknown degree of adverse health effects in relation to specific worker exposures should be promptly and directly communicated to those workers who are in the study population.

- Research that promotes a better understanding of the health effects of potentially toxic materials and the circumstances under which exposure may present a significant risk to human health should be given a high priority by industry and government.

- o Research methods employed must be scientifically sound and the methods for communicating study results outside the scientific community should reflect good scientific judgment, common sense and place the findings in an understandable perspective.

- o Well-designed worker health surveillance programs should contain well established methodologies for determining whether a hazard presents significant risk in the study population. Their use should continue and be expanded. These programs, however, are an integral part of an employer's responsibility to provide a safe and healthful workplace.

CMA POSITION ON H.R.1309

While the foregoing views are compatible with the spirit and intent of H.R. 1309, our careful review of the bill leads us to the conclusion that this proposal contains certain provisions which are technically unsound and others which duplicate authorities in existing laws.

1. GENERAL CONCERNS.

Before turning to the specific provisions of H.R. 1309, we have two general concerns.

(a) CMA does not agree with the findings contained in Section 2 of the bill which are advanced to establish the need for Congressional intervention.

These provisions assert, as a matter of fact, that today, large numbers of workers are seriously afflicted with occupational disease, that many more are at actual risk of developing disease, and that little is being done to protect them from hazards or to convey adequate information concerning these hazards to workers. CMA does not believe that these findings paint a scientifically accurate picture or one that reflects a current appraisal of the risks facing today's worker. While some hazards remain, many fruitful initiatives undertaken by OSHA, MSHA, NIOSH, individual employers, and many others, including voluntary standard setting organizations, have substantially diminished the risk of disease. This fact is demonstrated by scientific investigation.

The often cited and well known work of Professors Doll and Peto, commissioned by the Office of Technology Assessment, clearly points to a far lower than expected cancer risk associated with workplace exposures. Other studies have demonstrated that effective dust control practices have significantly decreased the risk of mesothelioma in workers exposed to asbestos and that smoking by itself has become by far the most significant factor in the development of lung disease in worker populations. Today's researchers are, therefore, focusing increasing attention on non-occupational factors such as smoking, diet, alcohol consumption and radon exposures in the home in their efforts to better understand the etiology of disease.

We do not mean to say that the job of eliminating workplace disease is finished. More research, better technologies, and an increased effort remain necessary; but, we cannot agree that current knowledge or scientifically reasonable expectation support the assertions of Section 2 of the bill or, establish the need for a new federal law to deal with the problems assumed to exist.

(b) CMA does not believe that H.R. 1309 will truly advance the causes of workplace health and disease prevention.

As we note more specifically in the remainder of this testimony, virtually all of the initiatives proposed in H.R. 1309 are already underway. There are good, carefully thought out programs that combine government, science, and industry efforts to respond to occupational health concerns. H.R. 1309 would appear to usurp employer initiatives, relieve them of important responsibilities, reallocate governmental and scientific resources, and superimpose a new generation of rules and mandates, as well as arbitrary scientific criteria.

There has been no showing in any forum to establish a need to proceed down this road and CMA believes that no such showing can be made. Let us work together to ensure success in our current endeavors and not prematurely change course. The vast experience gained in industry needs to be recognized in developing any further modification.

2. INCREASED RISK/HIGH RISK ELIGIBILITY CRITERIA.

CMA believes that the provisions requiring NIOSH, through a Risk Assessment Board, to classify workers into "high risk" or "increased risk" categories are not technically sound. These classifications are to be based upon arbitrarily defined increased incidence standards set forth in Sections 10(7) and 10(8) of the bill.

Specifically, Section 10 directs NIOSH to declare a population of workers to be at "increased risk" of disease attributable to an exposure where the disease occurs in the population at a rate 30% in excess of its occurrence in an unspecified population of non-exposed workers. The designation of a population at "high risk" is made when the increased incidence of a disease in the population is 100%.

Section 4(b) of the bill instructs the Risk Assessment Board to designate increased and high risk populations based upon this Board's review of toxicological and epidemiological studies, clinical observations, and animal or laboratory studies. If the data reviewed or any part of it can be translated into a conclusion that a 30% or 100% increased risk may be present, then program eligibility is triggered. Factors other than the occupational exposure, whether or not identified by the study, would not necessarily be considered. In addition, a small sample population could yield a 30 percent or 100 percent increase strictly on statistical variation without any real cause-effect relationship. Finally, there is no requirement that any study utilized must have survived peer review or that it be generally accepted in the scientific community. Thus, a system of scientific checks and balances is absent.

Once a designation was made, each worker in the population would be notified and accrue certain rights and benefits including the right to information concerning the risk of disease, medical counseling, and the right to have personal physicians use a telephone hot line. In addition, persons in the high risk category would have the right to full medical benefits under any health care financing program in which the employee is enrolled. These medical benefits would appear to include the diagnosis, treatment, medical monitoring, and family services deemed appropriate for persons in the high risk category for a particular disease. Section

8(c) of the bill would effectively amend all health insurance and health care financing programs in the United States to require the payment of the full cost of testing, evaluation and medical monitoring. Section 8(d) would provide health care insurers with subrogation rights if workers' compensation benefits are awarded to the employee.

CMA does not believe that the use of irreducible eligibility norms, the freehand extrapolation of data collected in one population to predict the health effects expected in other populations, or the uncritical reliance on any available data, including laboratory or animal studies, forms a scientifically valid methodology for identifying the actual risks confronted by a particular worker.

Epidemiology is the branch of science which may be applied in determining that a particular population is at increased risk of disease. It is an enormously useful tool in aiding our understanding of risks, but it is unlikely to be able to provide the hard and fast answers that are sought in H.R. 1309. The methodology employed in H.R. 1309 which seeks to predicate action on the basis of arbitrary 30% or 100% increased incidence ratios will, in CMA's opinion, prove both unworkable and unreliable. We hope that the following discussion of the limits of epidemiological inquiry will aid the Subcommittee in understanding our concern.

Difference In Precision Of Various Risk Measures.

The various risk measures (ratios) used to compare disease rates between populations of exposed and non-exposed workers are subject to considerable variation due to the potential influence of several factors. They include incomplete enumeration of the population at risk (the denominator), incomplete ascertainment or misdiagnosis of the diseased individuals among this population (the numerator) and the use of inappropriate comparison groups. Depending on the contribution of each of the above factors the resulting ratio can be an over or under estimate of the true ratio. Therefore, each factor must be evaluated to determine potential impact. Each study must be evaluated independently as well.

With these factors in mind it is difficult to see how the selection of hard and fast rules based upon relative risks of 1.3 and 2 can be supported by scientific authority or form a valid basis for action.

Statistical Issues.

The excess risk ratios proposed in H.R. 1309 establish purely statistical criteria for action, which may in fact have little or no biological significance. It should also be pointed out that multiple tests of statistical significance on the same body of data are likely to produce some positive (statistically significant) results by chance alone.

The point here is that much epidemiological inquiry begins in an effort to generate hypotheses for further testing and more refined study. While hypothesis-generating studies may produce reliable conclusions concerning true risk, there is a much greater likelihood that this will not be the case. H.R. 1309 would, therefore, often require NIOSH to draw invalid conclusions from preliminary data.

Effect of Confounding Factors.

In hypothesis-generating studies confounding factors such as smoking, diet, alcohol consumption and local phenomena are usually not considered. It is often the case that these factors ultimately prove to be far more significant than other exposures. In some circumstances confounding factors may be unknown. Where the identification of causation is the goal, it cannot be reliably established until confounding factors are identified and examined for significance in the specific population studied.

Association/Causation In One Population Extrapolated to Another.

Even where it is possible by means of a series of thorough and well designed studies to conclude that an excess incidence of disease exists and that the excess incidence may be associated with the exposure, it still remains inadvisable to extrapolate findings deemed valid for one population to any other population unless the other population is also controlled for the same confounding variables. If confounding factors differ, a qualitatively-similar exposure experienced by two populations may have little significance. Variations in the level or intensity of the exposure may also make it inappropriate to extrapolate study results from one population of workers to another.

The 30% and 100% Trigger.

The inherent limitations of epidemiological inquiry can only lead to the conclusion that inflexible excess incidence standards are likely to be poor criteria for decisions because they are unreliable mechanisms for predicting causation. We are aware of no valid scientific significance for the use of thresholds of 30% or 100% excess incidence in predicting causation.

In the Surgeon General's 1982 Report on Smoking and Cancer, great care is taken to describe a methodology for the proper interpretation and testing of epidemiological evidence and for drawing conclusions from data amassed. In addition to the strength of the association by itself, the Surgeon General notes the significance of consistency of results in independent studies, dose-response relationships, specificity of association, coherence of association, and temporal relationship of the association.

In sum, the proposal of H.R. 1309 which directs action simply on any excess incidence data cannot be scientifically justified. To the extent that the proposal requires the extrapolation of data from a study group to other populations, it reflects a scientifically invalid methodology. We note also that the prescriptions for action in these provisions are designed in such a way that public participation in the decision making process is not contemplated.

3. NOTIFICATION OF WORKERS.

Section 5 of the proposal directs NIOSH to notify individual workers within a class or category of employees that they are at risk of contracting an occupational disease. It would require that individual notification include a rating of the degree of risk, information concerning the disease associated with the exposure, medical counseling information, and information concerning the identity, composition and properties of the disease producing agent. The Section also would require the dissemination of general information concerning the risk.

For the most part, the task imposed on NIOSH by this section does little more than duplicate the responsibilities imposed on chemical manufacturers and other employers by the OSHA Hazard Communication Standard (29 C.F.R. §1910.1200) and the Employee Exposure and Medical Records Access Rule (29 C.F.R. §1910.20). In particular, the Hazard Communication Standard requires chemical manufacturers and importers to: identify hazardous substances that they produce or distribute on the basis of the best available scientific data; provide direct hazard information to all employees handling these substances; compile and make available material safety data sheets on each hazardous substance identified; and ensure that appropriate warnings and other information is made available to subsequent users of chemical products. The standard also requires covered employers to provide information and training to all employees potentially at risk and to make available relevant data to health professionals providing medical services to exposed employees. The Employee Access to Records rule directs employers to make available to

OSHA or any employee or employee's representative any and all exposure data, individual medical records, and compilations or studies of medical records, and requires that such records be retained for at least thirty years. We do not believe that the proposed Section 5 of H.R. 1309 adds anything to what is already in place. We further believe that the existing standard and regulation reflect the appropriate method for communicating hazard information to workers.

CMA firmly believes that it is the employer who must assume the primary responsibility for the evaluation of workplace risks and the communication of necessary information to exposed employees. NIOSH will not be able to perform these functions nearly as effectively. If directed to do so routinely under the terms of Section 5, NIOSH would be required to extrapolate research data compiled in the study of one workplace to many other work sites at which the risk of disease may be far lower or non-existent. Site-specific and employee-specific studies are essential to the scientific integrity of risk identification efforts.

It surely serves no useful purpose to inform employees that they are at significant risk of contracting a disease when in fact the risk is either insignificant or not properly identified. An employer is in a much better position to evaluate the specific risks faced by its employees as individuals, and is able to identify increased risks specific to its employees long before NIOSH would be in a position to do so. NIOSH does have a legitimate role under existing law as a back-up authority to monitor employer performance of health protection obligations either by independent study or in response to employee complaints, when employers are deemed by the employee to be inadequately forthcoming.

In sum, there seems to be no justification for the displacement of the employer's current role in communicating the potential risks of workplace hazards to employees and training employees in the avoidance of those risks. Indeed, the proposed procedures could significantly interfere with effective existing programs to the detriment of employee health protection.

4. EXPANDED RESEARCH.

Sections 3 and 4 of H.R. 1309 direct the Secretary of Health and Human Services through the National Institute for Occupational Safety and Health (NIOSH) and a newly authorized Risk Assessment Board to conduct clinical and laboratory research to (1) identify groups of workers at risk, (2) conduct clinical and laboratory studies on the etiology of occupational disease, (3) study medical surveillance and treatment modalities, (4) develop educational programs for workers and health professionals, and (5) conduct medical literature surveys.

NIOSH's authority to carry out these functions, other than the authority to create a Risk Assessment Board, has been in existence since 1970 in Sections 20, 21, and 22 of the Occupational Safety and Health Act (29 U.S.C. §§669, 670, 671). The reiteration of these authorities in a second federal law is unnecessary.

5. MEDICAL EVALUATION AND MONITORING.

CMA supports the medical monitoring or surveillance of workers at actual potential risk, early medical intervention and prompt and appropriate medical treatment. Indeed most CMA members companies already have well-designed programs to accomplish these objectives. The Peat Marwick survey of the chemical industry found that 95% of the companies surveyed maintain medical records, 100% have industrial hygiene programs for production workers and 96% percent have programs to respond to employee health questions. But again, we also believe that the employer is better positioned to evaluate the need for, and design and implement programs to be directed at any particular work force. The need for federal agency intervention in this area has simply not been established.

CMA believes the types of benefits being proposed are obtainable under workers' compensation laws, including care and treatment, if not monitoring. This proposal then suggests a step in the direction of federalizing workers' compensation for occupational disease. CMA believes this step is an unwarranted interference with the ability of states to match compensation to the conditions relevant to the needs of their citizens.

CMA also believes that the burdens which would be imposed by this proposal on insurance carriers and health care financing systems raise serious funding and legal concerns, and fail to include health care cost containment authorities. We are concerned that the imposition of potentially significant costs which may be associated with a monitoring program run by a sole source, non-competitive provider, may generate substantial increases in health care costs, leading to corresponding difficulties in obtaining health care insurance coverage for employees. We are also very much concerned that the use of sole source providers authorized to provide medical services would disrupt employee health care programs already in place and circumvent soundly-based health care cost containment initiatives which have been established. Finally, we strongly oppose any effort to exclude the employer from meaningful participation in the monitoring of its employees or the care of any occupationally-related condition, because we believe it would represent a reduction in the standard of health care currently provided.

6. EMPLOYEE DISCRIMINATION.

Section 7 of the bill prohibits any employer or insurance carrier from discriminating against an employee because the employee has been notified by NIOSH of his membership in a risk category. The section goes on to establish an enforcement mechanism available if an employee's rights are violated. Inasmuch as CMA does not believe that the special classification of employees into risk categories is either necessary or appropriate, no employee discrimination rights and remedies are called for. We note, however, that Section 11(c) of the OSH Act currently protects employees by prohibiting discrimination against employees who have exercised OSHA rights. NIOSH has also compiled an excellent record in protecting employees in this regard.

7. OCCUPATIONAL AND ENVIRONMENTAL HEALTH CENTERS.

Section 6 of the bill directs NIOSH to select from among its educational resource centers a group of facilities that would be designated as Occupational and Environmental Health Centers. These centers would be certified on the basis of their ability to provide research resources, treatment, medical monitoring and family services for employees in a high risk group. Medical monitoring would be conducted by the centers in accordance with NIOSH criteria.

Apart from the medical benefit delivery function of the centers, Sections 20-22 of the Occupational Safety and Health Act already contain sufficient authority to encourage the intensification of occupational health research and the development of better programs for the medical management of occupational disease surveillance and treatment.

To the extent that the requirements of this section would interfere with ongoing employer programs, we think it is a counter-productive idea. Employer facilities are generally more accessible to workers and are staffed by capable health professionals who have special sensitivities and training relevant to the particular risks faced by a particular group of workers. Employer facilities maintain medical, personal, and employment histories for workers and are, we believe, best able to evaluate the circumstances of an individual in light of available toxicological and epidemiological data. Within this setting, the opportunities for hypothesis generation and the prompt response to developing patterns of abnormality are maximized. And again, the data produced in these programs must be maintained and is available to the employee and NIOSH under OSHA's medical records access regulation.

There has been no showing that existing health care programs inadequately serve any population of workers or that existing facilities fail to provide proper monitoring or care to any worker, whether or not the worker is at risk of contracting an occupationally related illness. There is simply no case to be made in support of the commitment of substantial and costly resources which would be required for the initiation of a new federal health care program.

CMA RECOMMENDATIONS

While the foregoing statement makes clear CMA's concern with some of the specific proposals contained in H.R. 1309, it must be emphasized that CMA would support a well-designed initiative to aid in achieving our mutual goals of preventing occupational disease and responding to the needs of workers who are exposed to hazardous materials in the workplace.

CMA wishes to continue its cooperative and fruitful relationship with this Subcommittee and believes that our joint efforts should be, at this time, most productively channeled toward the enhancement of existing programs, the identification of real problem areas, and the search for sound solutions where needed.

Thank you very much for your consideration of our views.

Mr. Gaydos. I call on Mr. Murphy at this time.

Mr. Murphy. Thank you, Mr. Chairman.

Dr. Bonfili, you indicate that you encourage the monitoring of the health hazards all through the industry. Why do you consider it an additional burden—if you perform such a great job of monitoring? What is the burden of then informing the worker of the results of the monitoring?

Dr. Bonfili. Mr. Murphy, I believe in the chemical industry this is being done through the hazard communication standard, which has not become effective yet, but I believe will become more effective next month. And under the provisions for labeling chemicals as being toxic, putting health information on labels and putting it down on the material safety data sheet, including occupational control efforts——

Mr. Murphy. At CMA, are they doing that in compliance with the regulations of OSHA or NIOSH?

Dr. Bonfili. Sir, we have been doing that to some degree. But now with the hazard communication standard, which will be effective next month, this will be a standard that we will have to comply with. We will have to put this health information on labels, and we will be putting it on the material safety data sheets. And we will be required to and we do inform our employees of the health hazards associated, if there are any, with chemicals.

Mr. Murphy. And you think that that in itself is adequate notification?

Dr. Bonfili. Again, if a study is accomplished by NIOSH or by companies, and identify risks and a causal relationship to a particular chemical, then this information is made known to the employees.

Mr. Murphy. That is only, of course if you have the chemical there or the product there, and that is strictly a labeling standard, not informing them of any results of use and environment. There is no way you can label that.

Dr. Bonfili. No; on the Material Safety Data Sheet there is a section for a summary of health information related to that substance. Included may be any studies that may have been done on that substance, from which conclusions are drawn that it may be hazardous and to what degree.

Mr. Murphy. To whom will that be distributed, that sheet?

Dr. Bonfili. Employees who work with those substances will be counseled, will be given this information and extensive training programs; and this is currently being planned for now in industry.

Mr. Murphy. Thank you. Thank you, Mr. Chairman.

Mr. Gaydos. Mr. Chandler.

Mr. Chandler. In your prepared testimony on page 8, you talked about section 10, subsections (7) and (8), and the concern that you are expressing there about the identification of the high risk or increased risk population, the previous witness I think also expressed the same concern.

Now, specific to the bill, section 3, where it gives direction to the institute in making this identification, I would like you to expand in your comments on that. How effective could one expect this identification to be, even from the standpoint of whether it is statistically valid or not, of actually determining that there was a 30-

percent greater risk or a 100-percent greater risk for the high risk population given the direction of the bill and the capability of the institute to study statistics that are available, populations of workers who are working now, and so forth?

Dr. BONFILI. Maybe I can let Dr. Holmes address that question.

Dr. HOLMES. Mr. Chandler, in response to your question we believe that, and I believe as an epidemiologist that most of the studies that are done today are similar to the ones that Dr. Lamm referred to, mortality studies, morbidity studies, that produce these statistics. And what we want to try to convey to you today is that the risk that is established in those studies is a group risk. It is a risk that can be attributed to that group of workers, not necessarily to the individuals in that group. And we would submit to you that the arbitrary 30 percent and 100 percent may not apply from one group to another, and even more so, not necessarily to the individuals within those groups. And therefore, we are not like laboratory rats. We are very heterogeneous in our genetic makeup and have certain susceptibilities that are different from other people. You and I are different in that respect. And so therefore, each, even at a common exposure, a similar exposure quantitatively in a workplace might affect one person differently than another. And so therefore we are concerned about the actual risk as opposed to this as a set figure, when it may not really reflect the risk in one workplace compared to another or reflect the risk that that individual has, or individuals have in that population compared to the group. There may be other factors at work, as you stated earlier in your question to Dr. Lamm.

Mr. CHANDLER. Is my understanding correct that the bill takes the approach of let us look and see who has gotten sick or who has died and then identify the population at risk by that means? Current law rather looks at substances to which workers are exposed and as opposed to what you might almost characterize as parking the ambulance at the bottom of the cliff—gets to the top of the cliff and tries to reduce exposure takes a preventive approach. Is that a fair characterization do you think of this idea as opposed to current law?

Dr. BONFILI. I think that what we are trying to convey here is causality and association. I think when we have a specific substance or exposure, and we can relate causally, that it does produce dermatitis, or that it does produce an occupational disease in a group; and whereas we are trying to step back and say since this group, such as cooks, has an occupational disease problem; therefore, all cooks have it. And that is the way we interpret this bill. If we found a problem in one group, then we would have to extend that to all groups identified in a similar way.

The way it is done now is we have identified substances, whether they be carcinogenic or not, and we take certain actions based upon the required surveillance. And that is in the law; we are mandated to provide certain surveillance for materials, or the companies may initiate surveillance on their own, because of possible concern they may have; to see if there are any potential health risks there. Because we have a hazard it doesn't mean we have a risk, if we adequately control it, like the Chairman indicated.

Mr. CHANDLER. So when the chairman talks about the Vermont situation, mercury, we know that that is a hazardous substance. Is that what you are talking about?

Dr. BONFILI. Yes.

Mr. CHANDLER. And that under current law there are some protections for workers, whether it is enforced or not, never mind that, but that current law would provide some protection?

Dr. BONFILI. Current law and the hazard communication standard, which will be effective soon, would identify it to be a hazardous material—if people indeed are working with a hazardous substance. Information needs to be communicated on the proper handling of this material, and any health effects that arise out of improper handling and what occupational control measures need to be taken and what protection they need to wear, and the law mandates this. But this information should be communicated. So we are informing and will be informing under the hazard communication standard this information.

Mr. CHANDLER. OK. Thank you, Mr. Chairman.

Mr. GAYDOS. Doctor, should we forget all about those people who have been exposed to date?

Dr. HOLMES. I am sorry, sir?

Mr. GAYDOS. Let me ask it this way. Do you agree that because of the imperfection of statutes and administration and of man, per se, that there have been individual workers exposed in the past? Forget about what substance. Have some workers been exposed to some type of a substance?

Now, am I far off, or do your philosophy and mine differ when I say that I am worried about those that have been exposed the last 10 or 15 years and I would like to practically put something together that would go back, discern who they are and help them, and hopefully alleviate some of the suffering and maybe some of the insurance costs to our employers? Am I way off base in thinking that way? Or should we forget about those people that have been exposed in the past?

Dr. BONFILI. No; if they are currently exposed, they are working in an environment where they have exposure——

Mr. GAYDOS. I didn't say currently. Be fair with me. I said those exposed over the last 20 years or so. First I asked you do you admit that there have been some people working in today's work force that have been exposed to some dangerous or hazardous material over the last 20 years? Is that a truism, or is that a statement that has no basis or validity?

Dr. BONFILI. No; I think there is documentation.

Mr. GAYDOS. What are we going to do about them? If you were in my position, let us switch a little bit, and I respect you in your position and in your profession. Assuming I am doing the right thing, and the committee is, we are taking a look at trying to put together something that is going to help discern who these people are and then hopefully warn them. And maybe nothing will occur and maybe something will occur. They might get an extra 5 years, and I don't know who will put an evaluation on what 5 years of life is worth.

What should we do with them? That is my practical question.

Dr. **Bonfili.** Mr. Chairman, we are not opposed to notifying and advising employees of risk if it has been scientifically validated. In this bill, you have statutorily mandated trigger points where you would say this is what needs to be done. Little consideration, it appears, is given to some other factors that need consideration. We are, and we do notify people if they are in areas where they have risks, or have been exposed to risk validated by a study, either by industry or NIOSH, which finds associated risks with a particular substance——

Mr. **Gaydos.** Now, I am going to be real fair to you, and I am going to presume, I do assume that you represent a substantial company or group of companies and that the larger manufacturers in this country do just what you suggest they are doing. Let us take that assumption, they are doing it. That is not the point of the debate.

What about these small companies? What about these companies that have 10, 15, 20 people, or maybe 30, 40 people? Now, I hope that you agree with me when I say, and I think I am right, I think I have enough facts to base it upon and make the statement that right now those past exposures are not addressed by OSHA.

Now, let us take those smaller companies. What do we do with them, forget about them? If you were in my spot—a real fast change again—forget about those?

Dr. **Bonfili.** No, sir.

Mr. **Gaydos.** What do you suggest we do, then? That is what I want to ask you because you are in a position to give me some good advice.

Dr. **Bonfili.** I think NIOSH has that responsibility. They have done studies and are continuing to do studies to identify risk populations and are able to notify these people and advise them of the risks associated with the exposure, and, if necessary, the monitoring is provided by companies.

Mr. **Gaydos.** Doctor, 200 years and this country has not had any health statute. Other countries, so-called old European countries, archaic and down the drain and not as up-to-date as we are have had statutes on the books a long time, and we haven't had them. You know the standards, it took us 12 years after we put the act in—14 years to get a standard. That is how long it took us to do it.

I am just trying to explain to you why the committee is taking this approach. We are trying to get at a class or classification of workers that have had past exposure and will have future exposure, and taking the vacuum that exists under present OSHA, based upon experience and citations and everything else, nothing has been done in that area, and that is the reason why we have this bill.

But let me ask you some questions. Now, you have raised a question on the bill using the terms of "high" or "increased risk" of disease because of exposure. You raised that question. And if the 30 percent level for increased risk or the 100 percent level for high risk poses difficulties, what levels of incidence would you consider significant to alert us and to do something about it? None? Zero? Ten percent? How should we look at that?

Dr. **Holmes.** I believe that each specific exposure has to be handled on an individual basis for the reasons that I spoke of earlier in response to Mr. Chandler's question. It happens that other factors such as smoking, lifestyle factors and other things that are unrelated to occupation are related to the incidence of disease as are occupational factors. And those working together could produce a false positive result of risk that may be attributed falsely to the occupational factor in that regard.

Mr. GAYDOS. Some day, I don't know when, but some day the cigarette case is going to be tried and there is going to be an affirmative verdict. That is the same defense that is used there: you know, you don't get cancer from smoking cigarettes, you get it from where you work. You go in the workplace and they say you don't get cancer in the workplace, you get it from the cigarettes you are smoking. But some day, some 12 smart people are going to answer that.

Let me ask, on that point that you raised, and it is a good point. I think it is a practical point to substantiate your position. If that is true, are we unreasonable as a committee if we assume that those things do occur? That we have smoking, poor diet, all of those outside factors are important factors in disease when we are talking about workers' exposure. We understand that. Until we have a court decision or other finding we are going to have to go along with that.

But am I fair in asking the next question that follows, and I think logically? How about those outside factors? They may play a role, you know, in any consideration, but can we in all cases—and I emphasize all cases—have complete assurance that these elements are factors in every occupational illness or disease? What about the possibility, good possibility that those aren't factors? What do you do about those cases?

Dr. HOLMES. We have examples, many examples of studies that are being conducted among our CMA companies of actually trying to get at which factors are producing which results in the workplace. As a matter of fact, many, many studies have been done by industry, in addition to those done by NIOSH, which have tried to determine, in fact, whether there was a risk; and then, if, in fact, there was one demonstrated, whether it be because of occupational exposure or these other factors. These data have been reported to the employees who would be affected by that and specific surveillance programs enacted to follow them for what possibly might occur in the future. That is being done in the chemical industry today, and will be enhanced as we get into this hazard communication notification.

What we are suggesting here is that the mechanisms to do what you want done are already in place. It is just a matter of putting the focus on those within the appropriate agency and putting the focus on those pieces of legislation that already exist. And I think we have supported, as an industry organization, the expansion of the Hazard Communications Act to include those small employers that you are talking about.

Mr. GAYDOS. But does the hazard communication standard as we now have it, does it provide outside of the material data sheet and also some labeling which most workers don't consult or don't read or can't understand—I understand recent statistics indicate that as many as 20 percent of Americans can't even read on the level of the third grade. So say the man is working in there and you have the material data sheet hanging up in a corner somewhere, in a little cubbyhole, and he looks at the label and he can't read, and he is very embarrassed and doesn't want to tell anybody else he can't read—what about that man? Is he to be expended and forget about him?

Dr. HOLMES. Certainly not. Most of our CMA companies have, in fact, training programs that actually would not rely on his ability to read.

Mr. GAYDOS. I am going to admit that. But don't forget a lot of companies aren't that big, and they don't have the staff, and they don't particularly pay attention to it because of economic conditions and otherwise. They just don't. In fact, if I had to compare in the chemical industry—let us take that alone—compare the small operations, the "mom and pop" operations, who do packaging things, you know, and the things like splitting up the chemicals, you probably have more people, substantially more people involved nationwide in those things than you have in the big, major, reliable, responsible chemical manufacturers. You see, the committee has that obligation also.

Let me ask you this question. What about a factor analysis, a percentagewise? What if a guy does smoke one pack of cigarettes a day and he works with a chemical? We have a situation whereby the cigarettes cause lung cancer to a certain degree, like 20 percent, and then the chemical he is working with causes cancer also. You see, we understand about those outside factors, but sometimes we have comparative negligence, which is the biggest cause. That is a problem we have, too.

Dr. HOLMES. That is a very important factor in our studies. As we do epidemiologic studies, we have to take into account those factors and their association with each other. It is a very difficult task to do that, especially where you have these small groups of people. Because if you begin to categorize people into smokers, nonsmokers, exposures versus nonexposed, then you get down to evaluating a group of two people, and that becomes very difficult both statistically and biologically. And so I think that is where we are pointing out some of the problems with an arbitrary 30 percent trigger or 100 percent trigger where you are dealing with smaller groups, and they may not apply to the larger groups. And as we read the bill, that is the way it would be; that you would take this information from the smaller study possibly and extrapolate to the larger groups.

Mr. GAYDOS. Do you have problems with the animal testing, as distinguished——

Dr. HOLMES. The animal testing has its place in the whole evaluation of risks.

Mr. GAYDOS. Then you disagree with some of the prior witnesses?

Mr. HOLMES. No, I don't disagree with Dr. Lamm in the way he stated it. We have to, because of the long latency of disease we cannot be sure necessarily that we know the human experience in regard to new substances that are being brought into the workplace. So therefore, the animal testing has its place. I believe that there needs to be a greater utilization of other information that is available, perhaps from similar types of substances, not specifically on that substance. But there are commonalities in terms of toxicologic effects between chemicals and we can bear on that experience, too, and use the animal data in a little bit better way than we have in the past, but at the same time begin to look at the human experience——

Mr. GAYDOS. So you wouldn't discount it, you would use it part time?

Mr. HOLMES. Certainly. We need to use the animal data. It is valid scientific data put in perspective.

Mr. GAYDOS. What about your testing of these new substances you mentioned? Are these accurate statistics, something like 35,000 toxic chemicals are being used in industry today and every year 500 more toxic chemicals are coming out? Is that accurate or is that just hearsay or a witch's tale? What is that? Is that fairly accurate?

Dr. BONFILI. I think that is maybe where NIOSH needs to get a handle on the magnitude of this problem. The companies talk about the need to generate 2,000 MSDS's, information on their products or on the chemicals in their workplace. So it is not unreasonable, I mean, the magnitude of the number of chemicals you indicate.

Now, what is the risk? How hazardous are they? Obviously there are gradations of potential risk associated with these chemicals. I think that it is a very generalized statement to say they are all hazardous. There are various degrees of hazard and the controls are important.

Mr. GAYDOS. Well, let me say that NIOSH has made the study and they do have the accurate figures. I hope I didn't mislead you. I just asked whether those were the accurate figures. They do have accurate figures. They do have pronouncements that they have widely distributed as to the number of new chemicals coming on line that are hazardous.

Now, on that subject matter as a large concern, as distinguished from the smaller manufacturers, large concerns, how do they handle a new item? Do they test it like they do in the Food and Drug Administration? Is it long-term testing, short-term? Doesn't anybody test it? Does it find itself into a product without any testing going on? Any official test?

Dr. BONFILI. Any new product has to go through extensive toxicological testing before it is registered for marketing.

Mr. GAYDOS. How about using it in the place of employment? Any testing there?

Dr. HOLMES. Mr. Chairman, the——

Mr. GAYDOS. Counsel has corrected me, please; I am getting off on a tangent. We are talking about elements. We are not talking about a new product. I am getting mixed up.

I think you inferred or interpreted that I was talking about a product that the company manufactures. I am not talking about that. I am talking about the elements that go into manufacturing that product.

Now, say your scientists in the R&D come up with a product and a couple of new elements are added into that product. The question is do you just add those elements in because a scientist has devised his formula? Is there a testing period? Is it tested on somebody?

Does somebody have to approve that? How does that work, and is there a distinction between what we call substantial, big companies and little companies, "mom and pop" and the intermediaries, the packagers?

Dr. BONFILI. Most chemicals, and you addressed the large number of chemicals coming into existence as advertised by NIOSH; are combinations of chemicals that have been around, of feedstocks; and various combinations and proportions of these then are put together to develop new products, which may have different characteristics and that is why they are being developed. Then that product or that chemical would have to go through new testing. A lot of these chemicals are just being combined in different proportions, different numbers; and a lot of the work has been done on all the basic elements or feedstocks.

Mr. GAYDOS. Doctor, what you are telling me is that the elements that go into a product are not tested. That is what you are telling me. As far as their toxicity or adverse effects on the worker handling it. Is that an accurate statement on my part?

Dr. HOLMES. No, sir.

Mr. GAYDOS. Correct me where I am wrong.

Dr. HOLMES. Under the Premanufacturing Notification Act, under TOSCA, it is required that any new substance that is used in a product or is going to be put into a product be evaluated and actually submitted to the EPA for review to see if there is enough information on that substance in order to provide a safe enough level or safety factor for the company to go ahead and manufacture it. That is a requirement under TOSCA today. And that reflects even the substances going into the product, not only the product itself.

Mr. GAYDOS. Now, be careful what you are saying. You are saying it involves all the substances going into the product, all of the elements?

Dr. HOLMES. My understanding of it, yes.

Mr. GAYDOS. We will double check that because I think it is very essential. There have been accusations made both formally and informally that that isn't the case, see, so I don't know.

Dr. HOLMES. As far as the difference between large companies and small companies and how they do this, large companies obviously have their own toxicology labs and do these kinds of tests. But there are third-party labs and there are cooperative studies that the smaller companies can participate in and have participated in, so that it will reduce their costs specifically.

Mr. GAYDOS. Counsel raises a real good question. When you are making your tests, you are analyzing it, do you know—if you can answer the question—how do they prognosticate or estimate or prove what the long range effect of the substance is going to be as part of the product on people who are handling it? You know, how do you do that without using the animal studies?

Dr. HOLMES. That is the way they do it. In EPA, or in other areas, other agencies, they do what they call risk assessments, and it is based on largely animal data in the absence of human data. And they go through elaborate mathematical models, taking what they have seen in animals and giving safety factors and whatever to predict certain numbers of cases of whatever disease they are talking about. Mainly, they have done cancer risk assessments.

Mr. Gaydos. Who does that? Which agency?

Dr. Holmes. EPA, OSHA—several of them. NIOSH, also.

Mr. Gaydos. OSHA, NIOSH, EPA.

Dr. Holmes. Mainly, EPA.

Mr. Gaydos. You say that they do that?

Dr. Holmes. Yes, sir.

Mr. Gaydos. That they have records; the tests were made and they are filed as a matter of record?

Dr. Holmes. Yes, sir.

Mr. Gaydos. You have taken a position, gentlemen, that the bill is not needed and that we have existing law that takes care of it. The committee takes the position that that is the very reason for the suggested legislation, because the existing law as a matter of record hasn't been taking care of the problem as we envision it and as we identify it.

Could you, in closing, specifically point out the areas where you think the bill is deficient; but as counterdistinguished from that, could you point out to the committee the areas of the OSHA Act as it is being enforced which you feel are sufficient and that if they proceed to be enforced properly that we wouldn't need this substitute or additional bill?

Dr. Bonfili. Well, under the hazard communication standard, which has really not gone into effect yet. I think we haven't even seen the benefits or the effects that this standard is going to have.

Mr. Gaydos. You would rely upon that as one element?

Dr. Bonfili. That is one. I mean, we do notify people, we are required. We are forthright in presenting the information; the health information concerned with those exposures, how to handle those materials, how to deal with those materials in the workplace, and the risks associated with the materials are communicated. At least in the large companies, or in the chemical companies there are extensive educational programs. So people are communicating these issues, and that is one aspect.

Mr. Gaydos. All right, that is one aspect. On that one aspect are we agreed, you and I, that it would not address the problem of past exposures?

Dr. Bonfili. We do. The next aspect, OK——

Mr. Gaydos. I mean, it either does or doesn't.

Dr. Bonfili. The next aspect of this would be then the studies that have been performed in the past, or currently, by NIOSH, where they have identified past exposures of people and they have been notified of these exposures.

This is the other aspect: NIOSH continuing to do studies along with industry, cooperative studies at times, on people who been exposed. Just because they work in a chemical industry, or another industry, they have done studies to see if there are any health effects.

Mr. Gaydos. I will even give you the benefit of the doubt that some of that has been done. But it is not required to be done as a matter of law.

Dr. Bonfili. Yes; under OSHA law.

Mr. GAYDOS. An awful lot of this stuff isn't being done where it should be done. Do we agree there?

Dr. BONFILI. We agree. But also, funding can be increased for NIOSH to encourage these studies and produce more research.

Dr. HOLMES. Also, Mr. Chairman, I would point out that, at least in my reading of the bill, this bill does not really address past exposures.

Mr. GAYDOS. It doesn't? Can you spread on the record why?

Dr. HOLMES. It does not really address the fact that there have been past exposures. It really talks about an increased risk or the endpoint, if you will, that really doesn't distinguish between past exposures and/or present exposures. So that is one point of clarification that we make here that the bill does not really address. And we are concerned about past exposures. We should be concerned about past exposures. We agree with you on that. But the bill today as written does not make that distinction between what the risk, if in fact there is a risk, whether in fact it is related to past exposures or present.

Mr. GAYDOS. Just as a point of emphasis, then you would agree after a fashion that past exposures are important and you point to a deficiency in the bill, that it doesn't address that part?

Dr. HOLMES. Certainly the past exposures are the main reason for seeing the increased risk today. It really doesn't reflect the present exposures. We have through technology improvements and partly because of the regulations things are improving. And we would submit to you that because of our surveillance programs today, our education programs, our improved technology that the exposures today are different and that the risks—we would suggest that you give a chance to the present legislation in terms of how it is going to impact and how we feel sure it will impact in a positive way the workers' health.

Mr. GAYDOS. If those material data sheets and other procedures that are about to take effect are effective, the committee will come to a screeching halt. I guarantee it. I wish I could be that optimistic. I wish the record would show up until now that something like that has occurred after a limited fashion.

Anything else you want to put on the record that you think is important that we should know?

Dr. BONFILI. I think NIOSH has done and OSHA has done a remarkable job over the years. And I think as you admitted, Mr. Chairman, even in Pittsburgh there has been a drastic change; and I have allegiance to that city, being born and raised there, and educated in Pittsburgh. And I have seen significant improvements there in the environmental arena, and also in some of the plants there.

Mr. GAYDOS. Doctor, I hope I didn't mislead you because I wasn't at all complete. We do have a lot of benzene cases over there.

Dr. BONFILI. Sure.

Mr. GAYDOS. They are very troublesome and are causing us a lot of problems over there. Benzene is a dangerous and hazardous material, and has been implicated as one of the culprits behind an awful lot of heart attacks. We have a benzene standard, I don't know if it has come out yet or not. I don't think it has, and that is, you know, one of the problems we have. But I didn't want to mislead you when I said that Pittsburgh is a cleaner place.

I want to thank you for taking your time to come out here at your own expense. I don't think we are going to get billed—are we? And for participating in your Government. This is the only way we can get down to the nut of the problem, and I want to assure you your testimony is going to be considered in its entirety, completely and authentically; and hopefully, after we have it all in, we are going to be in a better position to judge and maybe take some action. There may be no action, I don't know. But thank you so much for coming.

Dr. **Bonfili**. We want to thank you, Mr. Chairman, for the opportunity.

Dr. **Holmes**. Thank you, Mr. Chairman.

Mr. **Gaydos**. The Chair will call the next witness, which is the American Mining Congress, represented by Bernard Roy, director of loss prevention for AMAX Inc., and chairman of the American Mining Congress Occupational Health Committee; and Mr. Harold Barnes, manager of health and safety for Homestake Mining Co.

And I see General Counsel Henry Chajet is between you gentlemen. I don't know if that is for a specific purpose or not, but he has been before the committee and with the committee on many instances I assure you, and we have high respect and regard for him.

Welcome to the committee. If you don't mind, I will, without objection, make your submitted testimony part of the record, and maybe we can get into a little discussion, a summation, and handle it that way. But I will let you use your own discretion.

Mr. **Roy**. Thank you, Mr. Chairman.

Mr. **Gaydos**. Without objection, so ordered. It is part of the record.

STATEMENT OF BERNARD ROY, DIRECTOR OF LOSS PREVENTION FOR AMAX INC., AND CHAIRMAN, AMERICAN MINING CONGRESS OCCUPATIONAL HEALTH COMMITTEE, ACCOMPANIED BY HENRY CHAJET, GENERAL COUNSEL; HAROLD BARNES, MANAGER OF HEALTH AND SAFETY, HOMESTAKE MINING CO.

Mr. **Roy**. We have considered summarizing our testimony, and I believe that the points that we want to make are all those in answers to questions that were raised with the previous witnesses and may place the entire matter in perspective.

Mr. **Gaydos**. That is good. Put it in, then.

Mr. **Roy**. So we will go along with it, if you don't mind, time permitting.

Good morning. My name is Bernie Roy, and I am the corporate director of loss prevention for AMAX in Greenwich, CT. On my right is——

Mr. **Gaydos**. Bernie, let me interrupt you before you proceed. I am going to leave for just 5 minutes. I will be right back. I have to take care of a matter, and Mr. Chandler will handle the committee. I will be right back.

Mr. **Roy**. OK, thank you.

Mr. **Gaydos**. You can continue.

Mr. Roy. Surely. You have the text.

Mr. Gaydos. Yes, we have the text, and I will be right back.

Mr. Chandler [presiding]. Why don't we just bring the bill to a vote while the chairman is gone? [Laughter.]

Mr. Roy. At any rate, to my right is senior counsel for the American Mining Congress, Mr. Henry Chajet; and his right, Harold Barnes, who is the manager of safety and health for the Homestake Mining Co.

Members of the committee, we really appreciate the opportunity to address the issue of H.R. 1309 and the opportunity for us to express our views on that matter.

As you know, the American Mining Congress is a trade association representing the vast majority of the producers of the Nation's metals, coal, industrial, and agricultural minerals, as well as manufacturers of mining and mineral processing equipment, supplies and machinery.

As spokesman for the industry, AMC can relay to you our commitment of protecting the safety and health of the miners who produce our Nation's minerals.

Mr. Chairman—who is not here but was with us—some 3 weeks ago was kind enough to address our convention in which he discussed the safety and health matters relating to H.R. 1309. We applaud and wholeheartedly endorse his concern for the protection of the health of our work force. Although we have some significant objections to the provisions of H.R. 1309, we certainly share in your goal of fostering the health and safety of our employees.

As you may recall from previous appearances before your subcommittee, AMC testimony is the result of a careful analysis by the health and safety experts of our many member companies. Their comments and views are reviewed and formulated into an industrywide position by AMC's board of directors' standing Committees on Occupational Health, Safety and Industrial Relations. As a result of our deliberative approach to analyzing legislation, the limited preparation time did not allow us to develop but a general overview of H.R. 1309. We will, however, submit detailed material and testimony, if you desire, for the record during the hearings scheduled for 1986.

Our concern with H.R. 1309 can be categorized with three major headings:

One, we don't believe that the bill is needed to accomplish worker notification, nor our common goal of employee protection.

Two, the details of H.R. 1309 are extremely disturbing due to their vagueness, and in some cases inappropriateness.

Three, the costs of conducting the program envisioned by H.R. 1309 could be staggering financially to the Government and industry, and emotionally to the employees involved.

Initially, we seriously question the need for H.R. 1309. The statutes creating the Occupational Safety and Health Administration [OSHA] and the Mine Safety and Health Administration [MSHA] require the Secretary of Health and Human Services, through his research aim, NIOSH, to conduct research and evaluations. The regulations of these agencies require a variety of health protections, training and communication of hazards to the employees.

Workers are regularly trained regarding the hazards of workplace exposure to potentially toxic substances. As you know, MSHA (the Mine Safety and Health Administration) requires a minimum of 48 hours initial training for underground employees and 24 hours initial training for surface employees. Initial training covers the hazards that an employee may be exposed to and is supplemented on an annual basis by a minimum of at least 8 hours of refresher training. This general training is oriented to site-specific hazards and is used in appropriate situations for toxic substance protection training.

Under the OSHA hazards communication regulations employees must be provided with information regarding hazards and the safe handling of potentially toxic materials. Inherent in this training is site-specific education of employees on the potential health effects of their exposures. Similar requirements have been enacted by many State and local governments.

Independent of any Government requirements, the AMC member companies have found it in their best interest to identify potential hazards, and control or eliminate potential employee exposures to these hazards. The large variety of mining and processing operations represented by AMC and their inherent differences prohibit an indepth description of the protective measures that our member companies undertake. However, we can assure you that all of our member companies are committed to the statement in our declaration of policy that, and I read:

> * * * pledges its continued cooperation in achieving the common goal of all parties involved in safety and health: the protection of the workforce.

We have attached that policy to our statement.

In addition to regulatory and company initiatives aimed at identifying and protecting against potential toxic hazards, extensive preventive measures result from independent Government activities. For example, both MSHA and OSHA conduct extensive industrial hygiene inspections at workplaces. These inspections entail an evaluation of hazards and enforcement action if employees are not being protected. Inspection activities are supplemented by NIOSH, which conducts routine health hazard evaluations and a large number of specialized research projects aimed at analyzing employment hazards.

The mining industry is currently undergoing an extensive evaluation of potential health risks through NIOSH's National Occupational Health Survey of Mining. A similar extensive study has already been completed for general industry. This NIOSH project alone will provide an indepth analysis of potential hazards throughout our industry through a randomized site visitation program of approximately 900 mines representing all mining commodities. This will be conducted over a 5-year period. AMC is cooperating with NIOSH in this project and has retained an experienced, certified industrial hygienist to monitor the project and provide seminars for affected mine operators to assist in making NIOSH visits a positive experience for their health programs. This research project will provide an industrywide inventory of potentially toxic materials and an extensive library of material safety data sheets for use by Government and industry.

These general programs are supplemented by either site-specific health hazard evaluations or substance-specific research projects. In 1984, NIOSH conducted numerous health hazard evaluations at a large number of industrial sites. Concurrently, the Institute conducted research on many potentially toxic substances and processes. For example, in mining along, NIOSH studied the effects of diesel emissions, heat stress, silica exposures, coal dust, radon daughters, welding fumes, asbestos, methylene chloride, hand and arm vibration, et cetera.

The results of these NIOSH studies are communicated to both employer and employee representatives. Similarly, all MSHA and OSHA enforcement efforts and regulatory requirements are communicated equally to employer and employee representatives. Most importantly, employer training programs include hazards analysis, communication, and protective techniques. These training programs incorporate many of the findings of the Government's research activities and are, of course, provided to the employees directly.

Although we cannot speak for the Federal agencies involved, we can relate to you our experience that they have never hesitated to provide pertinent information to employee representatives and, where appropriate, to employees themselves.

In responses to charges by the Public Citizen Health Research Group that NIOSH had suppressed evidence of occupational disease among American workers, HHS Assistant Secretary for Health, Edward N. Brandt, Jr., detailed the procedures by which NIOSH notifies workers of the results of health hazard evaluations. Dr. Brandt also noted that all workers are always advised of the results of NIOSH-conducted medical tests.

Results of epidemiological studies that involve review of records, but seldom involve direct contact with the individual workers, are related to the employer, the employee representative, the Department of Labor and appropriate State agencies. Dr. Brandt reported that NIOSH is reviewing the advisability and possible procedure for informing individual workers of the results of their retrospective epidemiological studies. He noted, however, that a final decision involves "complex moral, ethical, medical, and legal issues."

Copies of Dr. Brandt's letter, with background information, are attached to our testimony. This material clearly demonstrates that NIOSH is appropriately exercising the authority to notify workers of occupational disease risks.

Employees and their representatives are also routinely involved in both MSHA and OSHA enforcement activities, inspections and investigations. Similarly, employee representatives are provided the opportunity to accompany NIOSH investigators during site visits and research projects. Further, OSHA, NIOSH, and MSHA routinely provide employees and their representatives with notice of their rights to participate, and of the results of their enforcement and research projects.

In addition to the extensive communication efforts involved in these programs, it must be emphasized that employee exposures to potentially toxic substances are limited to safe levels by OSHA and MSHA permissible exposure levels. Violation of these exposure limits carries potential civil and criminal penalties. And, Mr.

Chairman, as you are well aware of the extensive worker compensation and tort liability costs associated with overexposures to toxic materials. Not only do employers have a responsibility to protect their employees, they have a financial duty to their shareholders to avoid the potential for extensive liability. Aa you know, this liability has already proven its disasterous financial consequences.

For all of these reasons we believe that the notification and prevention goals of H.R. 1309 are currently being met without the legislation and the potential difficulties that its enactment would create. To add another layer of Federal Government involvement is not warranted.

Although well-intentioned, the vagueness of the provisions of H.R. 1309 are troubling. The employee notification scheme is the basis of the bill and illustrative of the vagueness and potential for unintended, serious and troubling consequences.

The bill establishes a notification and intervention scheme by defining two groups of worker populations at risk of incurring occupational diseases: those at increased risk and those at high risk. These terms are respectively defined as groups with 30 percent greater chance of incurring disease than comparable workers not so exposed, and groups at 100 percent greater chance of incurring disease than comparable workers not so exposed. These definitions are used to trigger the bill's notification and prevention strategies.

First, we don't understand whether the bill is intended to cover current and future employees or whether it is intended to include all past employees as well. Although we have severe problems with H.R. 1309 in either case, to the extent that past employees are intended to be covered it becomes increasingly more complex and disturbing.

Although the simplistic nature of the definitions may have popular appeal, their vagueness is disasterous from the viewpoint of those of us in professions related to the prevention of the occurrence of occupational diseases.

Now, rather than go into the statistics aspects, because they have been discussed in greater detail by the previous three M.D.'s perhaps I could use a simple example as to the fallacies of statistics, and that is that of the 6-mile run. You know a few years ago the mile run barrier of 6 minutes was broken—at least in my lifetime—and then it was 5 minutes that did the trick, and now we have broken the 4 minutes. And if we are to extrapolate that, I think in a few more years we will all be running at 600 miles an hour and there won't be any need for transportation at all. So, in essence, I think we have to be very careful about statistics.

Some very important points, factors I think that need to be elucidated upon relating to the excesses of 30 percent and 100 percent that go into the statistical makeup, and let me name just a few of them. First is the nature of the study upon which it is based, whether it is animal—and I think there have been a lot of questions on that—laboratory, or humans; the number of persons studied and its representativeness of the population; the control group and its representativeness; the substance being used; the internal study controls that would eliminate the effects of compounding exposures; the accuracy of diagnostic process; the accuracy of exposure measurements; the validity of extrapolating from health effects of measured exposures to much lower exposure areas; and, of course, nonoccupational exposures as well.

Complicating this analysis is the distinction in reliability between morbidity studies and mortality studies. Morbidity studies often involve questionnaires with, at best, suspect results. They are much more subjective than mortality studies, and are thus recognized as being less reliable for demonstrating statistically significant excess risks.

These are just some of the factors that must be analyzed before a professional in our preventive business would decide whether or not to attach significance to any excess risk factor. In our text, we gave the example of lung cancer and standard mortality ratios of 200, 300. I think these were discussed in greater detail this morning, so there is no need to go into that.

A number of years ago, NIOSH conducted an epidemiological study of silica exposures at a silica operation where employees were exposed to respirable dust many times the advocated threshold limit values, or permissible exposure limits. Naturally, the study clearly demonstrated that the population at that specific site was specifically, or significantly at risk of contracting disabling silicosis. If a risk analysis had been performed, it would certainly have resulted in greater than 100 percent excess risk factor as required by the bill for a high-risk notification.

Unquestionably, the employees at that specific site should have been notified of the risks they were undertaking, and we believe that NIOSH did, in fact, notify them or their labor representatives.

Present law and regulation would also require notification if the study were conducted today. However, H.R. 1309 could also require notification of other groups or subgroups of workers potentially exposed to silica; that they, too, may be subject to high risk of contracting a disabling disease.

In mining, most of all production employees are potentially exposed to some form and quantity of silica dust because it is the most common element found in the rock that we must break and move to produce our products. The exposures, however, of the employees at the silica sand facility studied by NIOSH have no relationship whatsoever to the potential exposures of the general mining population.

Different mining operations, like different manufacturing processes, result in vastly different types of potential exposures. Yet, both NIOSH studies and MSHA enforcement inspections have clearly demonstrated that almost the entire mining population is within compliance limits for silica exposures. And, as I am sure you know, these exposure limits are based on scientific data demonstrating that these controlled exposures, at or below the limit for an entire working lifetime, will not result in the occurrence of disabling occupational disease.

To notify all workers that they are at high risk of contracting disabling silicosis would be factually incorrect, costly, and emotionally disturbing to them. Yet, H.R. 1309 could well produce this unintended and extremely counterproductive result.

Our concern with the potential emotional distress of our employees should not be taken lightly. Only last January, American workers, and the American public in general, were subjected to a wholly unwarranted and misleading report alleging Government suppression of evidence that over 200,000 workers were at increased risk of developing workplace-induced cancer, lung disease, heart disease, and other health problems. The report, issued by the Public Citizens Health Research Group, and referred to earlier in my testimony, purported to be based solely on documents provided by NIOSH in response to a Freedom of Information Act request by Public Citizen.

In fact, much of the report contained Public Citizen's own speculations as to the potential diseases arising from exposure to various workplace agents, even though Public Citizen had no idea of the extent of such exposures.

The nature and scope of the NIOSH studies cited by Public Citizen were not explained in the report. Thus, it was impossible to determine (1) whether the studies involved workplace exposure measurements or medical surveillance, (2) whether the studies found any excess risk of illness, and (3) whether the excess risk of illness, if any, was due to occupational, as opposed to other, causes.

Additionally, the report was rife with reporting errors as to the workplace locations, number of workers involved, and whether or not the workplaces were still in operation.

This misleading report, coupled with its wide dissemination in the press, raised unnecessary fear among American workers, including miners, and demonstrated the ethical and moral implications of any notification system. AMC relayed its serious concerns with the Public Citizen report in a letter to NIOSH Director Donald J. Millar, and we ask that this letter be attached to the record.

Similar horror stories of inappropriate notification have occurred before and, unfortunately, can be expected to occur again. H.R. 1309 would sanction the creation of this misinformation campaign. The only solution that the bill presents is the creation of the risk assessment board that would become the ultimate arbitrator of what studies are valid and who should be notified.

Mr. Chairman, as with all difficult problems, there are no easy solutions. And the creation of another board or committee will not in any way substitute for the professional judgment that must be used to evaluate the validity of research studies.

To summarize, the notification triggering mechanisms of H.R. 1309 are totally inappropriate. They are not based on the existence of a statistically significant risk that can be validly extrapolated to the group of workers to be notified.

As with the carefully constructed but hollow house of cards, H.R. 1309 disintegrates rapidly from even the slightest pressure at its base; namely, the triggering mechanism for notification. When viewed in light of the lack of need for this legislation, it becomes apparent that the bill would only serve to complicate a difficult subject matter.

Finally, we have not had yet the opportunity to assess the potential cost of H.R. 1309. The bill's identification and notification costs, although potentially excessive, may be minuscule when compared to potential increases in our health care and insurance costs resulting from unneeded and ineffective medical monitoring or inappropriate medical intervention.

Additionally, notification of employees comes with a significant risk of potentially unjustified liability claims both within and outside the worker compensation system. The potential for such claims may be acceptable when notification is truly justified. However, to inadvertently encourage unfounded claims through an inappropriately designed and unneded notification system will undoubtedly be a major blow to the viability of American industry.

At this time I probably could use another statistic and indicate to you, Mr. Chairman, that statistics indicate that by the year 2000 there will be more lawyers than people.

Mr. GAYDOS. There are already. [Laughter.]

Mr. ROY. We understand that a NIOSH pilot program for notification based on a retrospective mortality study resulted in immediate and extensive litigation. Mr. Chairman, you are very well aware of the thousands of approved and pending black lung cases, even though only 5 percent of them or less are warranted and approved under current proof requirements. You are also aware of the extensive asbestos litigation, even though much of this may not be warranted. To inadvertently encourage a national epidemic of unfounded claims would be devastating.

Mr. Chairman, your district has seen the rapid erosion of our industrial base. As you well know, the survival of what is left is dependent upon our competitiveness in world markets. Undertaking the program described in H.R. 1309 could place a severe economic strain upon American industry without any corresponding health gains. We respectfully request that both the General Accounting Office and the Office of Management and Budget conduct a prospective study of the cost and benefits of H.R. 1309 prior to its enactment.

Mr. Chairman, we believe that H.R. 1309 is both unnecessary and leaves something to be desired in the design. Although we are in complete agreement with your goal of protecting the health and safety of our Nation's work force, we are opposed to this bill. We hope that you will not report it to the full committee nor carry it to the floor of the House.

We appreciate this opportunity to provide you with our views, and we look forward to presenting further and more detailed materials to you early next year.

Thank you.

Mr. GAYDOS. Thank you very much, Director. I just have a few questions.

If the bill were prospective, as distinguished from retrospective, would that change your position? Meaning from here on out we start watching for notification and things like that?

Mr. ROY. I think that the mechanics are in place for notification now for the existing work force. The questions you had raised earlier with respect to the previous work force I think need to be addressed. And the suggestion that we have along that regard would be, perhaps, to have the National Institute of Occupational Safety and Health, who conduct most of the research in epidemiology and what not, perhaps for them to develop a policy for this notification. We have communicated this to Dr. Millar earlier. We understand there is a draft along that line. I think if you couple that draft or review of that draft to a public forum of rulemaking where you would give the opportunities to all parties concerned to provide their input it may well go a long ways to solving that problem.

Perhaps my colleagues may add some more to this.

Mr. GAYDOS. The Director informs me that Dr. Millar may be at our November 6 hearing, so that will be quite convenient. We will raise that question with him.

I, at this point, have a feeling that there appears to be a need, depending upon what other witnesses say, to do some narrowing of the group of risks because it seems to have no parameters. We might take a look at that, and maybe some other witnesses will throw some light in that fashion. I think you raise a good point when you suggest that that is one of the sensitive areas that should be explored in detail, Director.

Mr. ROY. I may add, Mr. Chairman, if I may, that initially I pointed out the workings of the standing committees of the American Mining Congress. The bill now is currently being circulated to some 50 to 75 health and safety professionals and industrial relations experts for their views and comments. When we get these we will be in a better position to provide you with some additional details more specific in nature. This time we wanted to concentrate on the general aspects of the bill.

Mr. GAYDOS. Well, possibly also you will have at that time, as you suggested, some cost analyses. That would be most helpful coming from you, and we will be comparing them with other costs estimates which would be involved. So we are looking forward to it, and I am presuming that you will respond to interrogatories if we forward them to you after you have time to get this other information accumulated.

Mr. ROY. We will be glad to.

Mr. GAYDOS. Ms. Strunk, do you have any questions at all? There being no questions, I do want to thank you for your appearance. And if I haven't already, I ask unanimous consent, and without objection so order that the testimony as submitted be made part of the record including the letter from Dr. Millar. I think it is a very important letter.

Mr. ROY. It is Dr. Brandt, Assistant Secretary. Then we have two other attachments that are referred to in the testimony.

[Additional information submitted by Bernard Roy follows:]

Appendix 1

VI. HUMAN RESOURCES

A. Safety and Health

It is of paramount importance for the mining industry to strive continuously to promote and provide a safe and healthful working environment for its employees.

Achieving this environment requires programs to detect, evaluate and eliminate the causes of mining-related injuries and illnesses. We shall, therefore, continue to cooperate with the government to:

- Research, identify and eliminate potential causes of injuries and illnesses;
- Develop, promote and conduct safety and health training programs; and
- Help determine the most effective and efficient use of government resources and eliminate government intervention in those areas best addressed by industry.

We will continue to cooperate with employees and their representatives to promote the individual responsibility, habits, attitudes and work practices necessary to reduce injuries and illnesses.

We support prompt regulatory and legislative reform that will permit the government to focus its finite resources on true problem areas and will eliminate unwarranted burdens on industry. We will continue to provide meaningful contributions to such reform efforts and to encourage standards and product approval requirements that:

- Recognize differences in mining methods, conditions and processing operations;
- Offer flexibility in reducing safety and health risks;
- Allow for the introduction of new technology; and
- Incorporate clear and concise performance requirements.

AMC pledges its continued efforts in achieving the common goal of all parties involved in safety and health: the protection of the workforce.

B. Employee Relations

We support management and labor relationships that improve productivity and safety, maintain America's competitiveness in the global marketplace, curb wasteful practices that fuel inflation, and provide fair levels of compensation for employees and a reasonable return on investment for shareholders.

To advance these goals, the enactment and administration of labor-management relations laws should adhere to certain precepts, including:

- Free and informed choice in employee decisions on whether or not to be represented by a union, with that choice protected by a secret ballot, and with no person's job dependent upon membership or nonmembership in or payment or nonpayment of fees or dues to a union.

- Application of national emergency dispute provisions of existing law, without government assuming authority to impose terms for settling private-sector disputes.

- Prohibitions on the use of public funds directly or indirectly to support strikes.

- Congressional action to redress the anti-employer bias in many laws and regulations and their implementation, including those that relate to nondiscrimination and the National Labor Relations Act.

- Recognition of management's exclusive authority to decide whether plants and facilities should be closed or relocated; or whether the work force at any plant or facility should be reduced, transferred or terminated; although management should be sensitive to the needs of the employees and communities affected.

Appendix 2

0

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institute for
Occupational Safety and Health
Centers for Disease Control
Atlanta GA 30333

COPY

[illegible] 1985

Mr. J. Allen Overton, Jr.
President
American Mining Congress
Suite 3000
1920 N Street, NW
Washington, D.C. 20036

Dear Mr. Overton:

Thank you for your letter dated February 15, regarding information released on January 23, 1985, by the Public Citizen Health Research Group (HRG) on individual notification of workers.

We believe that the information, as released by the HRG, was neither a proper interpretation of the results of our research nor a fair representation of our substantial efforts to widely disseminate the results. However, it is important to note that the issue of workers' rights to information and our obligations to inform them are issues which are important to us. We continue to be concerned about the best ways to do this.

Our letter (enclosed) to the HRG dated November 13, 1984, explains our position on the individual notification of workers, and specifically describes our mechanism for disseminating information. This mechanism has been in place for years. Also, enclosed is background information on worker notification which addresses the misinterpretations in the report released by HRG on January 23, 1985.

We appreciate your interest in this matter.

Sincerely yours,

J. Donald Millar, M.D.
Assistant Surgeon General
Director

2 Enclosures

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Office of the Assistant Secretary
for Health
Washington DC 20201

Copy

NOV 13 1984

Mr. Ralph Nader
Dr. Sidney Wolfe
Health Research Group
2000 P Street, N.W.
Washington, D.C. 20036

Dear Mr. Nader and Dr. Wolfe:

This is in response to your letter of October 22 to President Reagan regarding notification of individual workers about the results of epidemiologic studies conducted by the National Institute for Occupational Safety and Health (NIOSH). I would like to clarify the type of study at issue and correct misunderstandings about NIOSH policies on notification.

NIOSH conducts a wide range of research on health and safety issues related to the workplace and, in many instances, provides notification directly to individuals involved. In a health hazard evaluation, for example, reports are sent to the requestor of the study, the company involved, employee representatives, union headquarters, the Department of Labor, and appropriate State agencies. Final reports are either posted at the worksite for 30 days or sent to the affected employees. In addition, results of any medical tests on individuals are reported to the individuals or the individual's designated representative. NIOSH conducts approximately 550 health hazard evaluations annually involving thousands of employees and follows these practices routinely.

In reporting NIOSH field studies other than health hazard evaluations, procedures for health hazard evaluations apply except that results are not posted at the workplace or sent to affected employees unless medical tests were performed. In any case that NIOSH conducts medical tests, NIOSH reports test results to the individual and the individual's designate.

The notification concern you raise is an issue only in retrospective cohort mortality studies which are conducted by NIOSH in accordance with the Occupational Safety and Health Act and the Federal Mine Safety and Health Act. Such studies involve a review of records from various sources and very rarely involve direct contact with an individual. These studies essentially are statistical epidemiological studies in which NIOSH performs an extensive analysis of all information pertinent to the research topic. From the data gathered, NIOSH develops aggregate information about trends and potential risks factors of the cohort. In studies of this type, NIOSH generally is not given information on individuals which the company or the individual involved does not already have. NIOSH provides the aggregate data to companies, others who provided records for review, relevant unions or employee representatives where they exist, as well as to the Department of Labor and appropriate State agencies. Findings also are distributed through the general scientific literature and special publications available to the public and media. Any company may inform current or previous employees of study results.

Whether NIOSH should directly notify individual workers who were involved in a particular retrospective study is an important issue and one which is under active consideration. We firmly agree that this is an important public health matter that deals with complex moral, ethical, medical, and legal issues. We are attempting to arrive at an approach which is fair, feasible, and does not result in actual disbenefit to the worker.

NIOSH is developing a protocol for future notification efforts which will receive extensive peer review by notification experts and others in the occupational safety and health community. Such review is necessary to minimize the consequences that can occur if notification is not done properly.

Initial pilot studies are being evaluated and additional ones are being considered to address the issues pertaining to individual worker notification, the need for subsequent medical surveillance after notification, since such medical surveillance is not within the purview of NIOSH, and the considerations relating to notifying individuals when no effective intervention or early detection method is available. Such studies are an important learning step to determine how best to deal with a more extensive notification program.

In summary, NIOSH already goes to great lengths to make its findings public. We believe individual worker notification is an important issue, but the program that is used must be well thought out and properly reviewed to minimize any untoward consequences to the workers, their employers, and the involved communities.

Sincerely yours,

/S/ Edward N. Brandt, Jr.

Edward N. Brandt, Jr., M.D.
Assistant Secretary for Health

cc:
OD
NIOSH
CDC/W
ES/PHS
H Official File
CDC Official File (Return to CDC, Atlanta, Bg 1, Rm 3007)
CDC:JOMason:lbw 11/9/84 FTS 236-3291 (M/11/9)
OS #8410260020;Tracer No. 85634; CDC ID No. D19751; NIOSH ID #1354
Doc. 5066B (HHH - 6331M)

Background Information on
Individual Worker Notification

ISSUE: Should there be individual notification of workers whose records were reviewed in statistical epidemiological studies, when an excess risk of disease is indicated (in the aggregate) for that particular group of workers?

OVERVIEW - NIOSH Studies and Notification Policies: The National Institute for Occupational Safety and Health (NIOSH) conducts a wide range of research on health and safety issues related to the workplace and, in many instances, provides notification directly to individuals involved. In a health hazard evaluation (which is a request for assistance at a worksite initiated by an employer or employee representative), for example, reports of the results of the study are sent to the requestor of the study, the company involved, employee representatives, union headquarters, the Department of Labor, and appropriate State agencies. Final reports are either posted at the worksite for 30 days or sent to the affected employees. In addition, results of any medical tests on individuals are reported to the individuals or the individual's designated representative. NIOSH conducts approximately 550 health hazard evaluations annually involving thousands of employees and follows these practices routinely.

In reporting NIOSH field studies other than health hazard evaluations, procedures for health hazard evaluations apply except that results are not posted at the workplace or sent to affected employees unless medical tests were performed. In any case that NIOSH conducts medical tests, NIOSH reports test results to the individual and the individual's designate.

Recently, concern has been raised about the individual worker notification policy in one type of NIOSH study, retrospective cohort mortality studies, which are conducted by NIOSH in accordance with the Occupational Safety and Health Act and the Federal Mine Safety and Health Act. Such studies involve a review of records from various sources and very rarely involve direct contact with an individual. These studies essentially are statistical epidemiological studies in which NIOSH performs an extensive analysis of all information pertinent to the research topic. From the data gathered, NIOSH develops aggregate information about trends and potential risk factors of the cohort. In studies of this type, NIOSH generally is not given information on individuals which the company or the individual involved does not already have. By reviewing records from various sources, however, NIOSH develops generalized information about trends and potential risk factors for groups of workers. NIOSH provides the aggregate data to companies, others who provided records for review, relevant unions or employee representatives where they exist, as well as to the Department of Labor and appropriate State agencies. Findings also are distributed through the general scientific literature and special publications available to the public and media. Any company may inform current or previous employees of study results.

PUBLIC CITIZEN ALLEGATION: The statement released by Ralph Nader alleged that the NIOSH lists (contained) "...the names and locations of 249 workplaces where NIOSH investigations had previously determined over 200,000 workers to be at increased risk...." Moreover, the announcement implied that the supporting list was developed by NIOSH. We would like to correct both of these misimpressions.

First, the list which the Public Citizen Health Research Group (HRG) released was not a list developed by NIOSH. It was an attempted correlation by HRG of two lists of several types of NIOSH studies developed in order to help categorize what study populations might be appropriate for worker notification. In determining what study populations might benefit from notification, NIOSH considered: (1) current knowledge about the toxicity of the substance(s) in question or the risks of the population studied, (2) whether medical intervention was possible, and (3) whether controls would be effective. NIOSH provided these two listings to HRG in response to a Freedom of Information Act request. Unfortunately, HRG misconstrued the nature of these data and categorizations in developing its list.

Second, because NIOSH does not have information on individual exposures, NIOSH does not know if all individuals in these studies are at increased risk. What is known is that the groups included in some of the NIOSH studies showed elevated rates of disease. Furthermore, both the number of workplaces and potential numbers of workers cited by HRG are misleading. Not all workers at a specific plant were involved in a given study; neither do the findings of past exposures necessarily pertain to current workers. Also, some studies involved more than one plant, so results may represent findings arrived at by combining the data from all the plants included in the study. In addition, only 60 percent of the plant locations from the HRG list were taken from studies which concluded that workers as a group are at increased risk and may be appropriate for individual worker notification. Other plant locations were from studies that are either (1) ongoing, (2) proportionate mortality studies where NIOSH only had death records and no records on living individuals, or (3) the "terminated worker" files wherein accordance with the OSHA carcinogen regulations, medical files of workers no longer employed with a particular company are sent to NIOSH for retention for use in future research studies. The remaining locations on the HRG list involved cross-sectional medical studies, wherein keeping with NIOSH notification policy, notice of results to individual workers already has taken place.

CURRENT ACTIVITIES: Whether individual workers who were involved in a particular retrospective study should be notified is an important issue and one which is under active consideration. This is an important public health matter that deals with complex moral, ethical, medical, and legal issues. Efforts are underway to arrive at an approach which is fair, feasible, and does not result in actual detriment to the worker. The program that is used must be well thought out and properly reviewed to minimize any untoward consequences to the workers, their employers, and the involved communities.

NIOSH is developing a protocol for future notification efforts which will receive extensive peer review by notification experts and others in the occupational safety and health community. Such review is necessary to minimize the consequences that can occur if notification is not done properly. Initial pilot studies are being evaluated and additional ones are being considered to address the issues pertaining to individual worker notification, the need for subsequent medical surveillance after notification, since such medical surveillance is not within the purview of NIOSH, and the considerations relating to notifying individuals when no effective intervention or early detection method is available. Such studies are an important learning step to determine how best to deal with a more extensive notification program.

Appendix 3

AMERICAN
MINING
CONGRESS
FOUNDED 1897
SUITE 300
1920 N STREET NW
WASHINGTON
DC 20036
202/861•2800
TWX 710•822•0126

Officers

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Richard A. Lenon, Northbrook IL
Ralph E. Bailey, Wilmington
Samuel K. Scovil, Cleveland
Thomas A. Holmes, Woodcliff Lake NJ
Pierre Gousseland, Greenwich
A. M. Wilson, San Francisco
Robert H. Quenon, St. Louis
Ralph F. Cox, Denver
Thomas D. Barrow, Houston
Frank A. McPherson, Oklahoma City
W. A. Griffith, Wallace ID
Robert F. Anderson, Cleveland
Calvin A. Campbell, Jr., Chicago
Harry M. Conger, San Francisco
Robert M. McCann, Bethlehem
Richard G. Miller, Jr., Chicago
Walter F. Ousterman, Jr., Oakland
R. J. Gary, Dallas
Frank V. McMillen, Danbury
Lord Clitheroe, London
Kenneth J. Barr, Englewood CO
A. W. Calder, Pittsburgh
Gino P. Giusti, Stamford
Ralph L. Hennebach, New York
William G. Kegel, Indiana PA
John A. Wright, Clayton MO
Robert McInnes, Cleveland
Douglas J. Bourne, Houston
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Immediate Past Chairman
* Honorary

Copy

February 15, 1985

The Honorable J. Donald Millar
Director
National Institute for Occupational
  Safety and Health
1600 Clifton Road
Atlanta, Georgia 30333

Dear Dr. Millar:

On January 23, 1985, the Public Citizen Health Research Group (Public Citizen) issued a report purporting to show that the National Institute for Occupational Safety and Health (NIOSH) has suppressed evidence that over 200,000 workers are at increased risk of developing "cancer, lung disease, heart disease and other health problems" due to workplace exposures to various substances. A significant number of the workplaces cited are American mines and mills.

The American Mining Congress (AMC) is of the view that the Public Citizen report is inaccurate and lacks scientific objectivity. We therefore are impelled to respectfully request that NIOSH officially rebut, if not repudiate, important misrepresentations in the report.

First, Public Citizen's report suggests that the accompanying list of worksites was either prepared by NIOSH or wholly derived from NIOSH documents obtained under a Freedom of Information Act request. It is AMC's understanding, however, that much information was not provided by NIOSH but emerged from Public Citizen's own speculation, e.g. information regarding potential diseases in column five on the listing. The undue alarm generated by such speculation is unfortunate and must be alleviated by a sober recitation of the facts.

Second, several times the report refers to statements of NIOSH and CDC doctors and scientists, implying that these statements reflect the position of these departments. It is AMC's understanding that NIOSH and CDC are still developing worker notification policies and procedures.

Third, the nature and scope of the NIOSH "studies" cited by Public Citizen are not explained in the report. It is impossible to determine: (1) whether the studies involved workplace exposure measurements or medical surveillance; (2) whether the studies found excess risk of illness; and (3) whether the excess risk of illness was due to occupational, as opposed to other, causes.

Our understanding is that almost all of the mining-related materials supplied to Public Citizen were not conclusive and did not warrant further action. If so, the public should be apprised of the content and nature of the data relied upon by Public Citizen.

Fourth, several of our member companies report numerous reporting errors in the Public Citizen document. For instance, individual workers may have been counted two or three times, since a cohort of workers for successive studies at the same mine is often nearly the same. Likewise, the report is replete with instances where worksites are misidentified, located in the wrong state, or simply referred to as "unknown". Furthermore, Public Citizen leaves the impression that all workers referred to are still being exposed to the alleged risks even though a number of the worksites have long since ceased operations.

These technical errors are merely representative of the general lack of care taken in the preparation of the Public Citizen report.

Lastly, the Public Citizen report painstakingly leaves the impression that American workers have been left totally in the dark as to potential health effects arising in the workplace. Yet our member companies have been most forthcoming with respect to the dissemination of reports and information whether issued by NIOSH or by the companies themselves.

One could argue that Public Citizen's shallow and sensational treatment of the worker notification issue does not merit a response. Nevertheless, the report in question has received widespread coverage by both the national and local media. This attention has, in general, served to focus much heat and little light on the sensitive subjects of occupational health hazards and worker notification.

The record on this issue is now marred by misinformation and conjecture. I am hopeful that you will lend your good offices to setting the record straight.

Sincerely,

Allen

J. Allen Overton, Jr.
President

Mr. GAYDOS. And, Director, I want to thank you for your past appearance and for your complete cooperation between you and the staff. And, Mr. Chajet, Mr. Barnes, thank you very much for your appearance. We did answer a lot of the questions, and we will have a chance to analyze them as a committee. Hopefully, so will those who had to leave earlier.

We have the ranking member of the minority here. I wonder if he has any questions.

Mr. JEFFORDS. Mr. Chairman, obviously I thank you for the opportunity but at this particular moment I do not have any questions.

Mr. GAYDOS. That is very strange for a member of the committee, especially the minority leader. Very nice to have him here, we are most appreciative.

Thank you gentlemen for your appearance.

Mr. GAYDOS. Our last witnesses are the American Electronics Association and Rockwell International. We have Mr. George Campbell, director of health, safety, and environment with Rockwell, and we also have Mr. Evavold for the American Electronics Association. He is director of employee health programs for Sperry Corp. Defense Products Group.

So, gentlemen, without objection at this point, I make your formal presentation part of the record. If you want to sum your testimony, I am sure we would appreciate that, or if you want to give it in detail; it is up to you what you want to do. We will take your testimony as submitted and any exhibits you have will be made part of the record. OK?

STATEMENTS OF GEORGE W. CAMPBELL, DIRECTOR OF HEALTH, SAFETY, AND ENVIRONMENT, ROCKWELL INTERNATIONAL, ROCKY FLATS PLANT, GOLDEN, CO; AND E. ROSCOE EVAVOLD, DIRECTOR OF EMPLOYEE HEALTH PROGRAMS FOR SPERRY CORP., DEFENSE PRODUCTS GROUP, REPRESENTING AMERICAN ELECTRONICS ASSOCIATION

Mr. CAMPBELL. Yes; thank you, Mr. Chairman.

I would like to summarize my testimony. As you said, I am the director of health, safety, and environment for Rockwell International. I appreciate the opportunity to speak to you today, and appreciate your asking me to come do so.

I believe that more research on the relationship of chemical and physical agent exposure and disease will be a positive factor in improving occupational health in this country. As an example, perhaps NIOSH could perform more studies that would clarify the degree of risk associated with various suspect carcinogens. I think that the development of a board to review the current knowledge is not the best way to identify disease-causing chemicals. The primary way this bill could positively impact occupational health is to massively fund the toxicological and epidemiological studies needed to positively identify cause and effect relationships of chemicals and diseases such as cancer.

Although there are provisions for sponsoring this research in your current bill, and I support them, the costs will be in the hundreds of millions of dollars and the studies will take years to be conclusive. For example, the Department of Health and Human Services representatives state that whole animal, two species rodent carcinogenicity bioassays cost about $500,000 for each chemical tested and that it takes 64 months from the inception until a final report is issued. At present, worldwide capacity permits initiating about 300 such tests per year. At that rate, it would take 160 years and 24 billion 1985 dollars to test the estimated 48,000 chemicals presently used in commerce. And since we are adding about 500 new chemicals a year, the testing backlog will grow larger each year.

Rockwell maintains a firm commitment to preventing occupational hazards and diseases through the use of engineering controls and extensive medical and occupational safety programs. This bill should address the use of engineering controls in conjunction with established practices.

I want to give you an example of an engineering and safety practice control that we implemented at the Rocky Flats Plant. Previously, Transite, which as you may know is a mixture of concrete and asbestos, had been machined in several areas of our plant. The machining process could generate airborne asbestos unless proper controls and practices were established. Our industrial hygiene group implemented a control program whereby all Transite operations were consolidated into a central Transite machining facility. Engineering controls in the form of a specifically designed asbestos hood and ventilation system were implemented. Sampling has demonstrated the effectiveness of our control measures.

These actions reduced potential personnel exposures in several ways. Through consolidation, the actual number of exposed individuals was reduced from 30 to 5. The smaller number of potentially exposed individuals allowed for increased training and education thus resulting in improved work practices. The ventilation system was specifically designed for asbestos operations and was more efficient in the collection and filtration of asbestos dust than other methods of asbestos machining.

As I have delineated in several places in my written testimony, some sections of the proposed bill are already requirements set out in the Occupational Safety and Health Act, such as the identification and monitoring of health hazards from such materials as asbestos and lead. Section 2(b)(2) of your bill states that the bill will establish a Federal program to notify individual workers within populations at risk of occupationally induced disease that they are at high risk because of hazardous occupational exposure. We feel that the hazard communication standard requires manufacturers, importers and employers to create and use Material Safety Data Sheets, and more importantly for those who can't read, employee education programs that warn of the adverse health impact for all employees that work with and around hazardous materials. I applaud and I fully support the hazard communication standard.

Also, it seems that it would be very difficult for NIOSH to identify and notify all the populations at risk, and we feel that the requirements placed on employers by the hazard communication standards will meet this intent—the intent of your objective.

We support the concept for protection from discrimination for persons identified as being at risk. However, this bill should refer to title VII of the Civil Rights Act, the Rehabilitation Act, and section 11(c) of the OSHA Act, rather than writing duplicate requirements.

In summary, Rockwell remains dedicated to maintaining the health and safety of our employees. We support the need for more toxicological and epidemiological research and stress the importance of engineering controls. Many of the sections of this bill appear to already be a responsibility of OSHA and NIOSH. We recommend that the current OSHA Act be strengthened where it is necessary to assure employee notification and protection, and we would be pleased to work with you in that endeavor. Thank you very much.

Mr. GAYDOS. Thank you very much, Mr. Campbell, for your testimony.

[The prepared statement of George W. Campbell follows:]

PREPARED STATEMENT OF GEORGE W. CAMPBELL, ON BEHALF OF ROCKWELL INTERNATIONAL

Congressman Gaydos and distinguished Subcommittee Members.

I consider it a great honor to be able to appear before you today on behalf of Rockwell International. I am the Director of Health, Safety and Environment for Rockwell's Rocky Flats Plant in Golden, Colorado, and, as I explained to Congressman Gaydos, earlier in the year, I am dedicated to maintaining a safe and healthful environment for our workers.

Today I would like to give my general impressions of H.R. 1309 and then comment on specific portions of the bill.

It is the general consensus within Rockwell that this bill could be a positive factor in increasing occupational health in this country primarily by funding more definitive research on the relationship of chemical and physical agent exposure and disease. It would be of benefit to everyone to have someone (NIOSH) clarify the degree of risk associated with various agents, such as suspect carcinogens (beryllium, carbon tetrachloride, chromium, nickel, etc.). However, the costs of implementing this bill are substantial. Let's assume that 500 people were found to be at risk; we estimate that the cost of the loss of production time for medical evaluations could exceed $100,000. Furthermore, if one percent of those 500 require transfer to a non-hazardous assignment, the associated costs could exceed another $100,000. The cost for additional medical benefits could approach $300,000. Even if only ten percent of Rockwell's 120,000-person workforce fall under the coverage of this bill, the costs would be staggering. This money could be spent more effectively in epidemiological research and in designing and installing engineering controls. This bill does not acknowledge that occupational hazards and diseases can be prevented through engineering controls and the use of personal protective equipment. It seems to assume that an exposure to a hazard will result in an occupational disease. As I explained to Congressman Gaydos earlier in the year, Rockwell has extensive medical and occupational safety programs staffed with people who are dedicated to maintaining a safe work environment and to providing appropriate medical care and diagnosis. We strongly believe in installing engineering controls to prevent employee exposure to hazardous materials. Let me give you an example of an engineering control that we implemented at the Rocky Flats Plant. Previously, Transite (a mixture of concrete and asbestos) had been machined in seven different areas of the plant. The machining process could generate airborne asbestos unless proper controls and practices were established. Industrial Hygiene implemented a control program whereby all Transite operations were consolidated in a central "Transite machining" facility. Engineering controls, in the form of a specifically designed asbestos hood and ventilation system, were implemented. Sampling demonstrated the effectiveness of the control measures. These actions reduced personnel exposures in several ways.

- Through consolidation, the actual number of exposed individuals was reduced from approximately 30 to 5.
- The smaller number of exposed individuals allowed for increased training and education thus resulting in improved work practices.

- The ventilation system was specifically designed for asbestos operations and was more efficient in collection and filtration of asbestos dust than other methods of asbestos machining (i.e., wet methods).

This bill seems to overlap with other legislation, such as the Occupational Safety and Health Act (OSHA). Section 2(a)(7) states that there is no established national program for identifying, counseling, and medically monitoring worker populations at risk of occupational disease. The Occupational Safety and Health Act does require identification and monitoring of health hazards as well as medical monitoring for several hazards such as asbestos, lead, etc. Section 2(b)(2) states that this bill will establish a Federal program to notify individual workers within populations at risk of occupational induced disease that they are at risk because of a hazardous occupational exposure. It is a requirement of the Hazard Communication Standard that employers notify employees of workplace hazards and of any potential effects of exposures. I recognize that 1309 requires Federal notification to employees; however, this is a task that employers must feel responsible for and carry out.

The definitions of "population at increased risk" and "population at high risk" may not represent the true probability of contracting an occupational illness. For example, an illness occurrence rate of thirty percent greater than a comparable worker population not exposed to the hazardous occupational agent for a "population at increased risk" may not be statistically significant if the control population has any incidence of a given disease.

The method by which NIOSH is to identify populations at risk of occupational disease (review of the scientific literature) is quite vague and, I would think, not very effective. Similarly, the method by which NIOSH obtains the addresses of individuals within such populations, to be able to notify them of their risk, is also not clear.

The development of a Board to review current knowledge will not identify disease-causing chemicals. The primary way this bill could positively impact occupational health is to massively fund the toxicological and epidemiological studies needed to positively identify the cause-and-effect relationships of chemicals and diseases such as cancer. Although there are provisions for sponsoring such research, the costs will be in the hundreds of millions of dollars and the studies will take years to be conclusive. For example, Department of Health and Human Services representatives state that a whole-animal two-species rodent carcinogenicity bioassay costs about $500,000 for each chemical tested, and takes about 64 months from inception until the final report is issued. At present, known worldwide capacity permits initiating about 300 such tests each year. At that rate, it would take about 160 years and 24 billion 1985 dollars to test the estimated 48,000 chemicals presently used in commerce. But since about 500 new chemicals are introduced each year, the testing backlog grows larger every year.

The provisions for protection from discrimination for persons identified as being at increased risk, are an excellent idea. They should prevent employers, health care providers and insurance companies from developing a "leper" mentality and affecting rate or coverage. I predict that insurance rates would be affected based on occupation if certain occupations were considered to be at increased risk. This type of discrimination would be hard to control.

Now, let me turn to specific comments.

Page 2, Paragraph 4: "there is a period of time between exposure and onset of disease when it is often possible to medically intervene in the biological progress of disease to either prevent or, by early detection, successfully treat many disease conditions;"

> Comment: If exposure is recognized, then under OSHA law it is required to be reduced to safe levels by engineering methods; also, most occupational diseases--especially those involving neoplasm or lung disease--are not very easily treated; rather, they are chronic and/or progressive in nature.

Page 2, Paragraph 5: "a significant number of identifiable occupational populations are at risk of developing diseases because of hazardous occupational exposures;"

> Comment: If this is true, then why haven't these populations been protected under present OSHA law?

Page 2, Paragraph 6: "by means of established epidemiological, clinical and laboratory studies, it is possible to define and identify very specific worker populations at risk of contracting occupational diseases;"

> Comment: Historically this has not been the case. Human studies are very notorious for not being able to establish risk populations. That is why animal studies are used.

Page 2, Paragraph 7: "there is no established national program for identifying, notifying, counseling, and medically monitoring worker populations at risk of occupational diseases;"

> Comment: OSHA does establish programs of this type when it establishes a substance-specific comprehensive standard, i.e., Arsenic, Lead, Asbestos, etc. All contain provisions for training, medical monitoring, etc. Also, the new Hazard Communication Standard requires detailed worker notification and training.

Page 3, Paragraph 12: "through prevention and early detection of occupational disease, the staggering costs of medical treatment and care in the United States can be substantially reduced."

> Comment: Occupational disease is usually not detected early, but detected after chronic exposures. Those exposures which are acute are in the minority. All exposures to known toxic materials are regulated by OSHA. Prevention is too late medically. Exposures must be prevented for disease to be prevented. This is not medical, but rather engineering.

Page 4, Paragraph (a) 1-5:
(1) "studying the etiology and development of occupationally related diseases, and the development of disabilities resulting from such diseases.
(2) developing means of medical surveillance of employees exposed to occupational health hazards;
(3) examining the medical treatment of workers exposed to occupational health hazards, and means of medical intervention to prevent the deterioration of the health and functional capacity of employees disabled by occupational diseases;
(4) studying and developing medical treatment and allied social services of employees exposed to occupational health hazards; and
(5) developing educational programs designed to assist employees and their families take measures which ameliorate the effects of those diseases."

Comment: It is our understanding that NIOSH was already given this task. Why create a new Act to address this problem?

Page 5, Paragraph (b) 1-3: (b) Functions of Board. - (1) The Board shall -

(A) review current medical and other scientific studies and reports concerning the incidence of disease associated with employment;

(B) report to the Secretary on the state of current research with respect to such diseases; and

(C) designate from this review employee populations at risk of disease associated with hazardous occupational exposures.

(2) In identifying populations at risk of occupational disease, the Board shall consider the following factors based upon the best available scientific evidence -

(A) studies of agents, processes, or jobs that may be toxic based upon epidemiologic and clinical observations of human populations, or animal and laboratory studies;

(B) studies relating to estimates of increased risk of death or disease in specific sites, systems or organs of the body in exposed populations.

(3) If the Board determines that a class or category of employees is a population at increased risk of occupational disease, it shall make such a finding and, within ten days of making such a finding, transmit a recommendation to the Secretary that the individual within such population be notified under section 5 of this Act."

Comment: NIOSH has this responsibility presently and through that agency, OSHA promulgates standards and regulations to protect those populations.

Page 9, Section 5C: "Telephone Information. - The Secretary shall establish a telephone 'hot line' for the personal physicians of employees notified under this section, for the purpose of providing additional medical and scientific information concerning the nature of the risk and its associated disease."

Comment: Hot Line - occupational disease is rarely an emergency problem; it is usually associated with slight, but chronic overexposures.

Page 11, Section 7(a): "Employee Discrimination. (a) Discrimination Prohibited. - No employer, insurance carrier, or any other person shall discharge or in any manner discriminate against any employee on the basis that the employee has been notified by the Secretary that he is at risk of any occupational disease."

> Comment: We must prevent exposure to members of the work force that may have a disposition to the occupational disease or to refuse to hire those that may be disposed to the disease due to previous medical impairments.

Page 11, Section 7b: "Employee Discrimination. (b) Benefit Reduction Prohibited. - If, based upon sound medical advice or medical monitoring (or both) initiated under section 4 of this Act, it is determined that an employee should be transferred to a less hazardous or non-exposed job, the employee shall retain the same rates of pay, benefits, and seniority as in the former job."

> Comment: Neither Title VII of the Civil Rights Act of 1964 nor OSHA require this employee benefit. Similarly, The Rehabilitation Act does not require this very expensive proposed result. Pay should be based on job to be performed, not previous job held. This is a human resources issue, not health and safety issue and should be addressed through the normal collective bargaining process.

Page 12, Section 7d - (d) "Review of Discrimination Complaints.

(1) Any employee who believes he or she has been discriminated against by any employer, insurance carrier, or health care financing system in violation of subsection (a), (b), or (c) of this section, may, within three months after such violation occurs, apply to the Secretary for a review of such alleged violation. A copy of the application shall be sent to the person or institution alleged to have committed the violation, who shall be the respondent. Upon receipt of such application, the Secretary shall investigate the allegations, which shall include an opportunity for public hearings before an administrative law judge at the request of any party to present information relating to the alleged violation.

(2) The administrative law judge shall notify the parties in writing of the time and place of the hearing at least two weeks prior to the hearing. Any such hearing shall be subject to section 554 of Title 4, United States Code. Upon receiving the report of such investigation, the Secretary shall make findings of fact. If the Secretary finds that there was no such violation, the Secretary shall issue an order denying the application.

> Comments: We do not need another discrimination enforcement agency. The Equal Employment Opportunity Offices created under Title VII and Section 11C of the Occupational Safety and Health Act as enforced by the

Occupational Safety and Health Administration and the anti-discrimination provisions enforced by the Secretary of Labor, found in several EPA statutes (Clean Air Act, Safe Drinking Water Act, etc.) provide perfect vehicles to incorporate the enforcement interests of the proposed statute.

Page 13, Section 7e: "Reinstatement. - Any employee who is discriminated against in violation of this section shall be restored to his or her employment and shall be compensated for -
(1) any lost wages (including fringe benefits and seniority);
(2) costs associated with his or her medical monitoring; and
(3) costs associated with bringing the allegation of violation."

Comment: Remedy should not be predetermined.

In summary, Rockwell remains dedicated to maintaining the health and safety of our employees. We support the need for more toxicological and epidemiological research and stress the importance of engineering controls. Many of the sections of this bill appear to already be the responsiblity of OSHA and NIOSH. We recommend that the current OSHA Act be strengthened where it is necessary to assure employee notification and protection and we would be pleased to work with you in this endeavor. Thank you very much for allowing me to appear before you today.

Mr. Gaydos. We will proceed on to Mr. Evavold.

Mr. Evavold. The submitted remarks that we have prepared are fairly brief, and I would prefer, if it pleases the chairman, if I would proceed through that.

As indicated, I am Roscoe Evavold, director of employee health programs for Sperry Corp., Defense Products Group. I hold a master's degree in public health from the University of Minnesota and I am professionally certified in industrial hygiene and occupational safety. I appear here today on behalf of the American Electronics Association.

The association appreciates the opportunity to express our views and our concerns of H.R. 1309. We have devoted funds and professional staff to accident prevention, employee training, hazardous material controls and the minimization of employee exposure. AEA's 2,800 member companies encompass all segments of the electronics industries. The AEA membership includes companies of all sizes, from start-ups to the largest companies in the industry. Small companies employing 250 employees or less make up 71 percent of AEA's membership.

This bill calls for the establishment of a new Federal system for identifying, notifying, and preventing illness and death among workers who are at increased risk of occupational disease. The American Electronics Association opposes the passage of H.R. 1309 and offers the following comments to support that position.

In the area of disease causation, the work relatedness of certain diseases has been known for centuries. This knowledge led to the establishment of exposure guidelines and standards. And it is generally accepted by OSHA, NIOSH, professional industrial hygienists and toxicologists that if worker exposures are kept below the permissible exposure limits, the incidence of occupational disease will be eliminated entirely or be so low that it can only be detected by statistical evaluations of large populations. This bill gives the implication that existing exposure standards are inadequate, and rather than debate that issue we feel that if the standards are inadequate existing legal methods exist to address the standards in question.

The diseases of greatest concern to all of us are those that are life-threatening such as cancer and heart disease. These diseases, including even the very specific forms of cancer, are known to have multiple causes, many of which are nonwork related. It is generally accepted that a dose-response relationship exists for these diseases. In other words, the larger the dose or the amount of exposure, the greater the probability that the exposed individual will show observable effects. Conversely, less exposure will produce less risk of disease even to the point where low levels of exposure will not produce the disease. AEA believes that any valid prediction of disease risk must be based at least in part on quantitative exposure data and the correlation of the disease with specific disease-causing agents.

In the area of employee notification, communication with employees about hazardous materials they work with, the diseases these materials could cause, and the exposure levels that could cause the disease have been carried out by responsible companies for years. Where diseases have been specifically correlated with certain types of materials, such as asbestos, vinyl chloride, lead, OSHA has promulgated standards which mandate employee training. The Federal hazard communication rule and State employee-right-to-know laws require that employers be trained in the hazards of the materials they are working with and the diseases expected from exposure. Also required is information about safe levels of exposure which will prevent adverse effects. AEA believes that the employer-employee communication required by existing laws is sufficient and much more meaningful than the H.R. 1309 approach because the existing rules require a discussion based on actual exposure conditions on the job. Government notification of employees about disease risk that is not based on individual work conditions may be misleading and may create enormous amounts of fear among workers.

In the area of worker notification, H.R. 1309 appears to give NIOSH carte blanche access to all employment, occupational and health-related data and information maintained by the Federal Government. The ramifications of this access and the impact on privacy laws have to be researched legally. AEA believes that this provision is excessive and that the data will have little value in disease causation studies.

We also believe that the Federal notification program is unworkable unless the identity of each worker and his or her own risk potential is known. Existing Government data bases may be able to identify workers by broad categories such as machinists and bricklayers, but this identification lacks correlation to specific hazardous materials and quantitative exposure levels. The only source of specific work exposure data is the employer. Therefore, U.S. industry will have to be burdened with additional Federal reporting to support a system which, in part, will duplicate what industry is required to do already; namely, to notify workers of their risk of disease.

In the area of risk evaluation, AEA is very concerned that there is no requirement for public hearings or court reviews of the Risk Assessment Board and NIOSH actions. A Risk Assessment Board decision to notify certain workers that their jobs may cause disease has the same effect as telling them that their employer is negligent. We believe that employers have the right to due process when they are being accused of causing disease among their employees.

H.R. 1309 specifies the 30 percent or the 100 percent higher risk as trigger levels for the initiation of notification, counseling, surveillance and treatment activities. We suggest to you that if a worker population has a disease incidence rate of 2 cases per 10,000 and the general population has an incidence rate of the same disease of 1 case per 10,000, those workers then have a 100 percent higher risk than the general population. H.R. 1309 would require that all 10,000 of those workers be officially notified and told that they may get the disease. Additionally, official Government notification is work-related would guarantee that the businesses in this country would bear the burden of both the work-related disease and the nonwork-related case.

In the area of medical surveillance and treatment, H.R. 1309 would require medical surveillance for those identified high risk workers. OSHA already requires employers to provide medical evaluations for employees who are exposed to those materials which are correlated with specific diseases—lead, asbestos, and other examples. AEA takes the position that medical surveillance programs which are based on actual exposure information are effective and that we do not need Federal duplication. And the allocation of these duplicate surveillance and treatment costs back to employers will place a large uncontrollable burden on the employer's health insurance program.

AEA does not believe there is a gap in medical care for diseased employees. The employer either pays the cost through its worker's compensation program or its employee health care centers for diagnosis and treatment of workers. The creation of a Federal health care system for private workers is a major deviation from current Government policy, and we do not believe that H.R. 1309 is the proper forum for that debate.

In conclusion, the American Electronics Association wishes to thank you for this opportunity to express our views. We are concerned about the adverse effect that this program would have on our members. We do not believe it is necessary nor would it be effective if implemented. We urge you to validate existing programs of occupational disease control, strengthen them where necessary, and not create another Federal program.

Thank you.

Mr. **Gaydos**. Thank you very much, Mr. Evavold.

[The prepared statement of E. Roscoe Evavold follows:]

PREPARED STATEMENT OF E. ROSCOE EVAVOLD ON BEHALF OF THE AMERICAN ELECTRONICS ASSOCIATION

SUMMARY

- AEA member companies are committed to employee safety and health and to the reduction of occupational disease.
- AEA opposes the passage of H.R. 1309 because employee notification and training requirements are already required by existing regulation.
- AEA believes that individual worker exposure levels are a primary factor in disease risk. H.R. 1309 makes no provision for consideration of this factor.
- AEA believes that the bill's criteria for increased and high risk will cause the notification of hundreds of thousands of workers that will never contract an occupational disease.

I am E. Roscoe Evavold, Director of Employee Health Programs for Sperry Corporation, Defense Products Group. I hold a Master of Public Health degree from the University of Minnesota in Environmental Health and I am professionally certified in the fields of Industrial Hygiene and Occupational Safety. I am appearing here today on behalf of the American Electronics Association.

The American Electronics Association appreciates the opportunity to express our views and concerns about H.R. 1309 "High Risk Occupational Disease Notification and Prevention Act of 1985." AEA and its member companies are committed to compliance with the Occupational Safety and Health Act and its regulations. We have devoted funds and professional staff to accident prevention, employee training, hazardous materials control and the minimization of employee exposure.

AEA's 2,800 member companies encompass all segments of the electronics industries, including manufacturers and suppliers of computers and peripherals, semiconductors and other components, telecommunications equipment, defense systems and products, instruments, software, research and office systems. The AEA membership includes companies of all sizes, from "start-ups" to the largest companies in the industry. Small companies employing fewer than 250 employees make up 71 percent of AEA's membership.

AEA estimates that worldwide sales of U.S.-based electronics companies are $305 billion, and AEA member companies account for 66 percent of this total. Electronics industries represent the single larget manufacturing sector in the country, with 2.6 million employees and an annual payroll in excess of $65 billion.

H.R. 1309 calls for the establishment of a new federal system for identifying, notifying, and preventing illness and death among workers who are at increased risk of occupational disease. The American Electronics Association opposes the passage of H.R. 1309 and offers the following comments in support of that position.

Disease Causation

The work relatedness of certain diseases has been known for centuries. This knowledge led to the establishment of exposure guidelines and standards. It is generally accepted by OSHA, NIOSH, professional industrial hygienists and toxicologists that if worker exposures are kept below the permissible exposure limits, the incidence of occupational disease will be eliminated entirely or be so low that it can only be detected by statistical evaluations of large populations. This bill gives the implication that existing exposure standards are adequate and rather than debate this issue, takes the position that, if Congress believes that OSHA's standards are defective, then existing legal procedures should be utilized to address the standards in question.

The diseases of greatest concern to all of us are those that are life threatening such as cancer and heart disease. These diseases, including even the very specific forms of cancer, are known to have multiple causes many of which are non-work related. It is also generally accepted that a dose-response relationship exists for these diseases. In other words, the larger the dose or amount of exposure, the greater the probability that the exposed individual will show observable effects. Conversely, less exposure will produce less risk of disease even to the point where some low levels of exposure will not produce the disease. AEA believes that any valid prediction of disease risk must be based at least in part on quantitative exposure data and the correlation of the disease with a specific disease causing agent.

Employee Notification

Communication with employees about the hazards of materials they work with, the diseases these materials could cause, and the exposure levels that could cause the disease, has been carried out by responsible companies for years. Where diseases have been specifically correlated with certain types of materials, such as asbestos, vinyl chloride, lead, etc., OSHA has promulgated standards which mandate employee training. The Federal Hazard Communication Rule and State Worker Right to Know laws require that employees be trained in the hazards of the materials they are working with and the diseases expected from exposure. Also required is information about safe levels of exposure which will prevent adverse effects. AEA believes that the employer-employee communication required by existing laws is sufficient and much more meaningful that the H.R. 1309 proposal because it includes a discussion of actual exposure conditions on the job. Government notification of employees about disease risk that is not based on individual work conditions may be misleading and could create enormous amounts of fear among workers.

Worker Identification

H.R. 1309 appears to give NIOSH carte blanche access to all employment, occupational, and health related data and information maintained by the Federal Government. The ramifications of this access and the impact on privacy laws will have to be researched legally. AEA believes that this provision is excessive and that the data will have little value in disease causation studies.

We also believe that the federal notification program is unworkable unless the identity of each worker and his or her own risk potential is known. Existing government data bases may be able to identify workers by broad categories such as machinists, bricklayers, etc., but this identification lacks correlation to specific hazardous materials and quantitative exposure levels. The only source of specific work exposure data is the employer. Therefore, U.S. industry wil have to be burdened with additional federal reporting to support a system which, in part, will duplicate what industry is required to do, namely notify workers of their risk of disease.

Risk Evaluation

AEA is very concerned that there is no requirement for public hearings and court reviews of the Risk Assessment Board and NIOSH actions. A Risk Assessment Board decision to notify certain workers that their jobs may cause disease has the same effect as telling them that their employer is negligent. We believe that employers have the right to due process when they are being accused of causing disease among their employees. H.R. 1309 specifies 30 percent and 100 percent higher risk as trigger levels for the initiation of notification, counselling, surveillance and treatment activities. We suggest to you that if a worker population has a disease incidence of 2 cases per 10,000 and the general population has an incidence rate of the same disease of 1 case per 10,000, those workers have a 100 percent higher risk of that disease. H.R. 1309 would require all 10,000 workers in that group be officially notified and told that they may get the disease. Additionally, the government notification that a disease is work-related would guarantee that business would bear the burden of both the work-related and non-work related causes.

Medical Surveillance and Treatment

H.R. 1309 would require medical surveillance for identified "high risk" workers. OSHA already requires employers to provide medical evaluations for employees who are exposed to those materials which are correlated with specific diseases (lead, asbestos, etc.). AEA takes the position that medical surveillance programs which are based on actual exposure information are effective and that we do not need federal duplication. The allocation of these duplicate surveillance and treatment costs back to the employers will place a large uncontrollable burden on the employer's health insurance program.

AEA does not believe there is a gap in medical care for diseased employees. The employer either pays the cost through its worker's compensation program or its employee health care centers for diagnosis and treatment of workers is not necessary and the creation of a federal health care system for private workers is a major deviation from current government policy. We do not believe H.R. 1309 is the proper forum for that debate.

The American Electronics Association wishes to thank you for this opportunity to express our views. We are very concerned about the adverse impact this program would have on our members. We do not believe it is necessary nor would it be effective if implemented. We urge you to validate existing programs of occupational disease control, strengthen them where necessary, and not create another federal program.

Mr. **Gaydos**. I now call on Mr. Jeffords.

Mr. **Jeffords**. Thank you, Mr. Chairman.

I am sure we are all concerned, as has been indicated, about assuring that people do have adequate protection against risks, but I would agree that the questions that you have raised are ones that ought to be fully examined.

I would like to have just some information first on NIOSH. They currently notify workers of these things. When do they do that? Can either of you tell me when that occurs, under what circumstances?

Mr. **Evavold**. In terms of NIOSH notification, we have not participated in any of NIOSH's health hazard surveys of our facilities, so I am not familiar with the sequence and with the procedure that NIOSH uses. The employee notification I was referring to was our own employee notification under existing laws.

Mr. **Campbell**. In the studies that NIOSH has conducted within the Rocky Flats facilities, once they have completed their studies they then notify, at least in our case they have notified the workers of the potential effects. They also do their own separate medical evaluation and counsel with each worker—at least that is the way they did it at our facility—while the study was going on.

Mr. **Jeffords**. You have raised the question of cost, and I would like to separate that into two questions. Have you done an analysis of the anticipated cost of this bill to your own organization, or in your case, organizations? And if so, do you have any information you could provide on that?

Mr. **Campbell**. We have done a preliminary study taking one of our plants as an example. We said that if 500 people were affected or that fell under this program, and we took a plant of 6,000 people and said under this program if we were looking at 500 people the initial costs for notification would be about $100,000, added lost time from work would be about $100,000, and additional medical benefits would be about $300,000. That is a one-time cost. If you multiply that times the 120,000 work force that Rockwell has, the number becomes—startup costs become very large.

Mr. **Evavold**. Because the bill as we have read it does not define specifically enough as to what worker populations would be subject to notification that would have to come out of additional studies or the development of procedures that NIOSH would do. We have not been able to put costs with this bill at this stage.

Mr. **Jeffords**. I assume that probably the answer to this is no, but have you estimated what the costs would be to the Federal Government, those in your particular plants or association?

Mr. **Campbell**. No; we have not.

Mr. **Evavold**. We have not.

Mr. **Jeffords**. That is all I have, Mr. Chairman. Thank you.

Mr. **Gaydos**. Gentlemen, let me ask you just a couple of general questions. Do you think that there is a large number of employees in our work force today that has been exposed to certain toxic substances and hasn't been identified, and they are continually exposed to such substances? Do you think that is a legitimate group to be concerned about or do you think we are just puffing air around here?

Mr. EVAVOLD. I believe that there is a large number of employees that has been exposed in the past. I do not believe there is a larger number of employees that continue to be exposed beyond the OSHA standards. If the OSHA system and enforcement is inadequate and that is true, I am not aware of it from our end of the industry. So I would not agree that there are currently workers that are exposed above acceptable exposure limits.

Mr. GAYDOS. Are you suggesting then that under the present OSHA Act, that all substances that are potentially hazardous are going to be identified with the new standards that come down? Is that what you are talking about?

Mr. EVAVOLD. Well, OSHA has in its regulations quite a number of materials that do have specific exposure numbers. The difficulty in the development of new exposure standards is to assimilate adequate information to identify the risk and establish a cause/effect relationship with a particular material and the disease that it causes. Without that kind of data it is difficult to establish a permissible exposure number.

Mr. CAMPBELL. I agree with the first question that there may be workers who have been exposed to materials in the past who have not been notified. I support my colleague's comment that that is not happening for the most part in today's world. I believe that the OSHA organization could be strengthened; that, indeed, funding for an appropriate number of inspectors and the appropriate funding at NIOSH could accomplish the intent of what you are trying to get at in this bill. I think the background is there, the people with the appropriate experience are running those programs. They just need people to go out and check particularly the small manufacturers that you are concerned about.

Mr. GAYDOS. Well, for the record and as a matter of explanation, do you think presently, as I have mentioned to some prior witnesses, that the larger companies are doing, on a 1-to-10 basis, a number 10 job, 7, 5—how would you rate them? Are they perfect?

Mr. CAMPBELL. Well, I don't believe there is such a thing as perfect. But I believe that larger companies are trying very hard to make sure that we aren't exposing our employees to some material that is going to have an effect on them or their families. And categorically I can say that Rockwell makes every attempt to assess a new material before we use it to ensure that we instill or put in place the proper engineering controls in conjunction with the proper protective equipment before we start using a material.

Mr. GAYDOS. You know the record doesn't substantiate what you say. We have just numerous cases of chemical companies and they have been subjected to fines that some have not even appealed from. There are numerous instances of very dangerous chemicals that are still being used, and apparently there are many, many chemicals and uses and exposures that have gone unnoticed and are still in existence. Those are a matter of statistics. We can go into them in detail and accumulate them for you. Those things are occurring and that is why the bill has been drawn up, for that particular purpose.

It appears—I say it appears; I want to emphasize the word "appears"—that OSHA as it is now enforced, as the law is now written; it seems to be inadequate for many, many reasons. I mean that is left open to conjecture, but it seems to be inadequate in doing what we think should be done; that is, identifying exposures to hazardous and toxic substances. And that is a reason again for this bill. Of course we have other provisions in the bill—identifying high risks as distinguished from other types of risks, and a certain procedure in there as to treatment, which is debatable one way or another.

But as I understand your testimony, then, are you of the opinion that we don't need the bill as it is submitted? Is that what I understand you to say, there is no need for it?

Mr. EVAVOLD. That would be our position, the American Electronics Association position, based on the statement we made. An additional comment, the notification program, notification system would appear to me, and I am not an epidemiologist, but would appear to me to take population risk statistics and apply them to individual workers. And I think as those of us in the health and safety field are keenly aware that population risk of so many cases per 10,000 becomes very dangerous when we start applying that to Bob Jones, Don Stanley, whoever, out in the facility, and when the notification system evolves into an official letter from the Government notifying that individual that they are a candidate for disease it creates a tremendous amount of fear, a lot of concern, particularly when the input to that designation as a risk individual does not appear to be based on actual exposure conditions on the job.

Mr. GAYDOS. Let me ask you this question. Do you think that the material safety data sheet as such is sufficient or insufficient to notify a worker that there are dangerous substances that he is being exposed to? Do you think that is enough?

Mr. CAMPBELL. Well, the hazard communication standard doesn't require just the material data information sheet, it requires that you sit down with the employee that works with the chemical and explain that sheet to them. When that is done, when you relate what that employee is doing in the workplace, what their job actually is with the information that is contained on that sheet, which includes the risks of that chemical, the precaution to take around using that chemical, the hazards of that chemical, then, yes, it is sufficient.

Mr. GAYDOS. Well, I just want to point out that most companies have in existence a safety program, they do the same thing; they get the employee and expose them to slides, they give them written data, and they talk to them and they tour the workplace, and inevitably an accident occurs. So it seems that your analogy might not be too substantial because the facts indicate that normally people are inattentive, normally when you are talking about chemicals and identifications and technical names they are unintelligible, normally most instances take into consideration in this country the status for the average as far as intellectual ability and reading ability on a 12th grade level. All of those different factors indicate that it is a very dubious at best methodology of identifying and notifying the problem we are talking about.

I want to get your opinion being out in the business field, and we know this is a business bill as well as it is an employee bill. What is wrong with notifying an employee that he may be, and that is how the terminology would be, he may be exposed to hazardous material which may be hazardous to his health? What is wrong with that? Maybe we should copy the material data sheet and send that to the employee in the mail, make sure he has it. Maybe his wife will be better able to understand.

But what is wrong with that concept? And we want to know because that is what the committee is considering.

Mr. EVAVOLD. Employee notification of hazard is not wrong. We have been doing that since before OSHA came along. Many of our industries have been doing that. I have personally been doing that.

I believe that this approach is wrong, first of all, because the notification requirements for the employer to communicate with the employer are already there.

Mr. GAYDOS. Well, let us stop right there. If I may. You say the notification is already there. What form does it take? Are you talking about the new standard we just have?

Mr. EVAVOLD. Yes; the new standard, and the new Federal standard as well as many existing State laws, one of which we have in Minnesota that I am most familiar with. That law requires the informing of the employee about the hazards of the material they work with at the time they begin working with the material. So they have that information up front.

Mr. GAYDOS. Please believe me, on that label, on the Material Data Sheet, it does not say this may be dangerous to your health I don't believe.

Mr. EVAVOLD. Yes; I beg you pardon, sir, it does. The Material Safety Data Sheets do that.

Mr. CAMPBELL. Very definitely.

Mr. GAYDOS. It does?

Mr. CAMPBELL. Very definitely.

Mr. EVAVOLD. Yes.

Mr. GAYDOS. All right. But what is your next reason?

Mr. EVAVOLD. That is not to say that all Material Safety Data Sheets are perfect, but there certainly is a lot of good information there and those of us in the industrial hygiene field have used the information on those data sheets to supplement——

Mr. GAYDOS. You would have to use a scope on Mt. Sinai to read some of those things the way they are printed up, too, you know that. If you don't have that, you go down to the "five and ten" and buy spectacles down there, you know. You need that because you can't read them they are so small. But go ahead.

Mr. EVAVOLD. The point I was making is that there is a requirement to inform these employees at the time they begin working with these materials. That is a very specific requirement in that law. And not in the Federal law, but in some of the State laws we have the requirement to annually train and update the information we give to those individuals. The reporting program and the notification program as I envision in H.R. 1309 would retrospectively go back and try to notify employees that they have, in fact, been exposed; that they are part of that risk group which does nothing to prevent exposure. It does essentially nothing.

Mr. GAYDOS. Well, it can't. Normally it can't. I mean it is physically impossible because time has already passed. But if I interpret you properly, are you questioning whether or not we should go back and notify an employee who was exposed, say, 10 years ago. You say that is not proper to do; is that what you are saying?

Mr. **Evavold**. My concern about that is whether or not the notification would, in fact, have been based on actual worker exposure conditions. To identify that worker out of a group of machinists, bricklayers, miners, or whatever, and notify every individual in that group just simply because of population risk statistics now leads us into the situation of, in essence, wrongly notifying employees that they are subject to some disease from past exposure.

Mr. **Gaydos**. I understand now when you say that. Now, that is all based upon the assumption that physically or statistically it can't be done accurately. If that is the case, it is not going to be done. Because no one is going to ask the impossible to be done.

But let me frame the hypothetical for you. If it can be done with accuracy, what is wrong with it? Forget about the argument whether it is going to be done with accuracy or not, you are going to misidentify and all of that stuff. Say if it can be done, that assumption. Given that fair assumption, what is wrong with notifying them?

Are you afraid of lawsuits? Is that what you think, the suits are going to be confiscatory? If so, state so on the record. I am trying to find out, you know, what the basis of your nonagreement with the suggested legislation is. I am looking for facts.

Mr. **Evavold**. If it could be done accurately and if it can be done in relationship to the other causative factors that cause the disease—you get into the multiple causation factors in all of these diseases. To put that in perspective——

Mr. **Gaydos**. That is a reasonable presumption we have to take. If it can't be done, we are not going to have a bill, you know that. But go ahead. Would you then agree with it, that it wouldn't be too bad?

Mr. **Evavold**. Then I believe, as we have done, inform employees of their risks. Yes.

Mr. **Gaydos**. What about the scope of the group we are talking about? We have had other witnesses say that it is too large, that it is nondefined, it is too loose. Should we narrow down those that should be notified or should we have a cutoff limitation, go back no more than 5 years, 10 years? Or how should we do it? Do you have any feelings on that?

Mr. **Evavold**. I think that the notification must be based on the individual exposure, not work group exposures, because of the tremendous diversity of actual quantitative exposure of those individuals. That unless there is some quantitative image there of what the level of exposure was, we cannot accurately predict disease. And that is the key factor that I am——

Mr. **Gaydos**. So you are questioning, then, that you don't know of any known procedure that would be able to notify an individual within a group because if it is in the workplace and there are 50 people working around it in varying degrees of distance from the item, you say there might be some differences on exposure level and consistency of exposure and outside factors. Is that what bothers you?

Mr. **Evavold**. Very definitely, from the industrial hygiene standpoint the quantitative level of exposure is one of the baseline factors that correlates a given material with disease.

Mr. Gaydos. Do you have any problem with animal tests?

Mr. Evavold. Animal tests properly run serves as the basis for good toxicological data.

Mr. Gaydos. One of the witnesses stated they are awful expensive; $600,000 or so, you know, just for one in so much time. Do you happen to agree with that?

Mr. Evavold. I have no firsthand knowledge, but from what I have read, yes, they are very expensive. Yes.

Mr. Gaydos. You wanted to say something, I am sorry, go ahead. I am just trying to get some information on the record so we have, you know, something to analyze.

Mr. Campbell. I think one very important point of this bill you are talking about is notification. I think we ought to notify employees about the hazards with which they have worked, or which they previously worked with if that is possible. But when I say "we," I mean employers.

Mr. Gaydos. Let the employers do it?

Mr. Campbell. I think that the manufacturers and employers, not the Government must notify these employees. We as employers need to feel responsible for the safety of our employees. If the Government does that, then we don't have that responsibility any more. We don't need to worry about it because they are going to take care of it for us, and that is not right.

That is our major problem with the bill. You know, we really think that we should be made to feel responsible for doing what they are asking.

Mr. Gaydos. That gives us some food for thought. You feel that the responsibility should rest with an individual employer and then put some sanctions in if he doesn't do it. And you know, we have that, of course, in place under the existing OSHA Act. As far as other statistics, work injury accidents and things like that we have had difficulties, you know. Some employers are most scrupulous and most honest. It works, but you always have, of course, the exception.

And again I can understand your reasoning when you say that you can't get rule for the majority because the exceptions are going to do something wrong. I understand that. But that is a thought I am glad you put into the record because we can take a look at that, too.

Mr. Jeffords. Mr. Chairman.

Mr. Gaydos. Yes, sir, Mr. Jeffords.

Mr. Jeffords. I would like to ask some questions relative to the other part of the bill with respect to notification. For it is not just notification of risks, but it also includes these provisions, and I would like your advice as to whether these are possible pieces of information to be supplied and what kind of complexity it would add to any kind of a notification, whether it be for the Government or from industry.

The bill says there shall be required, in the notice, counseling information appropriate to the level of risk including but not limited to (a) the advisability of initiating a personal medical monitoring program, (b) the most appropriate type of medical monitoring for the disease associated with risk, and then a couple of other things which are not really pertinent to the question I am asking.

Does that raise problems for you?

Mr. EVAVOLD. It raises problems for me as an industrial hygienist because unless again that notification of the individual can reflect in some manner the quantitative exposure level that that individual has experienced, the notification is not going to be related to that person's risk. If diseases are, in fact, caused by exposure to hazardous materials, then the quantitative level of exposure becomes a factor. And to notify someone that they are at a specific risk without knowledge of that quantitative level of exposure means the risk evaluation and the notification could very well be erroneous.

Mr. JEFFORDS. Well, let me try to get that in context with my question. Then you are saying that whether or not you should initiate a personal monitoring program or some other medical monitoring for that disease with the intent entirely upon the exposure and you would be very difficult, if not impossible, to be able to, given that kind of information, to have any meaning without raising undue concerns?

Mr. EVAVOLD. Right. Existing OSHA standards, those that have recently been promulgated—lead, for example—requires that when the exposure has exceeded a certain level that certain tests be run. Basing medical surveillance on actual exposure data is valid. It has always been valid from the industrial hygiene standpoint. Starting medical surveillance based on population risk statistics has little meaning.

Mr. JEFFORDS. Mr. Campbell.

Mr. CAMPBELL. I would like to say that within our organization we are developing something we call an occupational health information system which contains, among other things, the material data information sheets on the computer system. It also contains the employee's medical file so that the physician can call up that employee's file, look at the place where they work, review the listing of the materials in that workplace, and the physician can then look at those materials and decide if any of those warrant his looking for specific things in that person's yearly physical and that, indeed, he can look for areas of concern that might be related to that specific chemical.

So we are taking seriously the whole hazards communication program in looking specifically at the workplace: what materials are there, what kind of characteristics are there of disease related to those materials in our workplace, and do we see those symptoms in our employees.

Mr. JEFFORDS. Thank you, Mr. Chairman. I, first of all, think it is an excellent idea that we have these hearings and will continue to have these hearings to examine what improvements should be made in this area. I would tend to agree with these witnesses. Our existing laws with, perhaps, some modifications can do it without perhaps bringing about a whole new program. But I think it is very important that we do focus attention on this issue and to determine what the committee ought to do with respect to improving our present situation.

Thank you very much. I think they gave some very objective testimony and very helpful testimony.

Mr. GAYDOS. On behalf of the committee I want to thank you for your appearance, and I want to thank you for your forthright responses. I am sure your positions are authentic and you feel completely that you have taken the proper position. The committee needs information on all sides of this subject matter.

I remember when we passed OSHA most people said it wouldn't work, that the cost was going to put everybody out of business. And I remember prior to OSHA hearings, after OSHA hearings, and since the OSHA hearings—that is 15 years—there has never been one business of record before this committee which stated that they went out of business because of OSHA. That was one of the key factors in the fight against OSHA. It was going to put 30 percent of American businesses out of business.

We do have a lot of fears. The purposes of these hearings are to try to justify those fears, glean through all the facts hopefully to get together a sound program, and to make a final determination if we need this legislation. There are good indications that we need it, and, of course, maybe the testimony might dispel that. I don't know.

Thank you so much for participating in our Government. And as I told the other witnesses, please, we are not expecting a bill from you for your transportation. All right? [Laughter.]

Mr. GAYDOS. Thank you so much.

That concludes today's hearing. The subcommittee will stand in recess—the joint committee rather, until next Wednesday, October 16, when our second hearing on H.R. 1309 will be conducted. That hearing will commence at 9:30, this room, this building, and it will be on the same subject matter.

[Whereupon, at 12:42 p.m., the subcommittees were recessed, to reconvene at 9:30 a.m., Wednesday, October 16, 1985, in room 2261, Rayburn House Office Building.]

THE HIGH RISK OCCUPATIONAL DISEASE NOTIFICATION AND PREVENTION ACT OF 1985

WEDNESDAY, NOVEMBER 6, 1985

House of Representatives,
Subcommittee on Health and Safety, and
Subcommittee on Labor Standards,
Committee on Education and Labor,
Washington, DC.

The subcommittees met, pursuant to call, at 9:30 a.m., in room 2261, Rayburn House Office Building, Hon. Joseph M. Gaydos (chairman of the Subcommittee on Health and Safety) presiding.

Members present: Representatives Gaydos, Murphy, Hayes, Petri, Bartlett, and Chandler.

Staff present: Sy Holzman, deputy staff director, and Lee Bassford, staff assistant, Subcommittee on Health and Safety; Rich Fiesta, counsel, Lynn Rongaus, staff assistant, Subcommittee on Labor Standards; and Dorothy Strunk, senior legislative associate (minority).

Mr. Gaydos. The committee will be in order.

On behalf of the committee, I would like to welcome our friends that have been here before, and I am sure will give us telling and meaningful testimony.

It is no secret that there are substances in the workplace that are harmful, and even fatal, to employees who are directly exposed to them. Some of these substances, as we know, produce immediate health problems, but others appear to cause diseases that only after a long period of latency are discovered.

H.R. 1309, the High Risk Occupational Disease Notification and Prevention Act of 1985, is aimed at addressing the concerns of workers who are faced with those diseases that become evident several years after the actual exposure.

Today, our witnesses represent the employee organizations. I hope and expect that today's witnesses will focus on many of the same concerns expressed by industry witnesses, so that we can get a better understanding of the issues and a broader and different perspective of the problems facing employees who deal with workplace substances that can, and do, cause certain diseases.

So, at this time, I would like to call on Mr. Chandler for any opening statement he may have.

Mr. Chandler. No, thank you, Mr. Chairman. Let's just proceed.

Mr. Gaydos. All right. Our good friend Sheldon Samuels is here with Jack Sheehan and some of our other friends, so Sheldon, I am going to turn it over to you. You are going to take charge of the panel.

Without objection, all prepared and submitted testimony will be made part of the record.

Mr. **Chandler**. Mr. Chairman, could I just reserve the right to object on that one point. And that concerns Mr. Samuels' testimony, in which there is submitted for the record draft letters from Mr. Brock to James Miller, the Director of OMB, and from the Department of Health and Human Services to you.

Both of these are draft statements. I have asked both those Departments to state their positions, and have been told there is no official position yet. So, I have no objection to any part of the statements being included, of course, but I do question—and I don't know how Mr. Samuels got copies of these draft statements—the propriety of including that in the record at this point, before the position is made official.

Mr. **Gaydos**. Mr. Samuels, do you want to respond that?

STATEMENTS OF SHELDON W. SAMUELS, DIRECTOR, HEALTH, SAFETY AND ENVIRONMENT, INDUSTRIAL UNION DEPARTMENT, AFL-CIO; JACK SHEEHAN, LEGISLATIVE DIRECTOR, UNITED STEEL WORKERS OF AMERICA; FRANKLIN E. MIRER, DIRECTOR, HEALTH AND SAFETY DEPARTMENT, INTERNATIONAL UNION, UAW, ACCOMPANIED BY MICHAEL A. SILVERSTEIN, M.D., INTERNATIONAL UNION, UNITED AUTOMOBILE, AEROSPACE AND AGRICULTURAL IMPLEMENT WORKERS OF AMERICA [UAW]; KENNETH B. MILLER, M.D., OCCUPATIONAL HEALTH PHYSICIAN, OIL, CHEMICAL AND ATOMIC WORKERS INTERNATIONAL UNION, AFL-CIO; AND MARGARET SEMINARIO, ASSOCIATE DIRECTOR, DEPARTMENT OF OCCUPATIONAL SAFETY, HEALTH AND SOCIAL SECURITY, AFL-CIO

Mr. **Samuels**. I have no objections to the materials being held. The materials are not confidential. They are floating all over town. But I think the substance of our testimony——

Mr. **Chandler**. They are not floating in my house.

Mr. **Samuels**. I would suggest that the substance of our testimony can be made without those documents being in the record. I certainly have no objection.

Mr. **Gaydos**. But we have a copy of the documents for the perusal of the chairman and the committee?

Mr. **Samuels**. Yes, sir, they are appended to my testimony.

Mr. **Gaydos**. Let the record speak for itself, and without objection, as explained by Mr. Samuels and also questions raised by my colleague, we will leave it rest in that manner and we will proceed with the other submitted written testimony, in its entirety, being made a part of the record, without exception.

Mr. **Samuels**. Thank you very much.

Mr. **Gaydos**. Without objection, so ordered.

Mr. **Samuels**. With your concurrence, Mr. Gaydos, I would like to make a short statement, and then introduce Jack Sheehan, assistant to the president of the United Steel Workers of America; Frank Mirer, who is the director of the department of health and safety of the United Auto Workers; Dr. Silverstein, who is medical director of the United Auto Workers; Dr. Kenneth Miller, who is medical director of the OCAW; and Peggy Seminario, who is the associate director for occupational health for the AFL-CIO.

With no objections, I would like to begin on that basis.

Mr. **Gaydos**. On C-SPAN, you did a good job today, I just want you to know that. And go ahead. Excellent job.

Ms. **Seminario**. Thank you.

Mr. **Samuels**. Mr. Gaydos, distinguished members of the committee and staff, I would like to begin our testimony by referring to a report to the Governor of the New York State Commission.

The commission recommended, urged by the State Federation of Labor, in view of new chemical compounds constantly being developed, regardless of our lack of perfect knowledge, nevertheless, workers are entitled to know; they must not be kept in ignorance about their current and past exposures to toxic substances.

In order to aid in the promotion of their health, to protect workers from job discrimination and difficulties in workers' compensation claims, medical examinations were recommended for workers at risk, the record of such to be supplied only to the worker to meet four needs:

Early detection, assistance safeguarding the workplace, protecting fellow workers and public from economic disaster, and to guide the employee in selection of his occupation.

Mr. Gaydos, the Governor was Franklin Delano Roosevelt. That report, Mr. Gaydos, was written more than half a century ago. At that time, the commission believed that existing scientific information was adequate for action.

There were and are questions of medicine of science to be answered, but there will always be questions. But action has not been taken.

Meanwhile, uncounted millions of workers exposed to a broad range of environmental hazards, have been denied access to the same public health measures that brought tuberculosis under control, saved thousands of lives at risk of cancer, and is responsible for the current significant reduction of heart disease, early warning, early detection, early health promotion, and early treatment of populations at high risk of disease.

Now, how important are these? A recent Department of Labor study found that medical surveillance now required by OSHA has reduced the number of byssinosis cases by 5,000. The reason is quite simple.

High government officials, company executives or others, are empowered to demand and receive the fruits of scientific inquiry, paid for by public moneys, and carried out in public institutions.

Workers are told to bear acceptable risks, no matter how unnecessary. Workers who are unconscionably but consciously being sacrificed as a matter of corporate convenience are being told by the Chemical Manufacturers Association, for example, that the risks need not be reduced, only their perceptions of risk.

When OSHA was passed, it was obvious that between the programs of prevention and compensation, a legislative gap remained.

That is the medical arm created by the act, NIOSH, was not specifically instructed to provide a program to save, through medical and social services, the lives of workers who, because of conditions in the past, and even of perfect OSHA in the future, are in a limbo of residual risk.

At the same time the act went into effect, it was very clear that a program of intervention utilizing established public health techniques was needed to assist workers in populations at risk, but NIOSH did nothing.

A few courageous Government scientists, such as William Johnson of NIOSH, and conscientious academicians, such as Irving Selikoff of Mt. Sinai, told us of populations requiring immediate assistance.

With our own resources, those of management, when we could negotiate such programs, and funds from the National Institutes of Health, NCI, and NIEHS, those programs were begun.

Even post facto, that is, after the programs were begun, even minuscule support from NIOSH has been difficult to achieve because of political pressure from higher levels of the bureaucracy.

Yet, every Director of NIOSH, especially Dr. John Finklea, has worked to gain funds and support from the agency which should have led the way, the Centers for Disease Control, of which NIOSH is a neglected division.

Anthony Robbins succeeded in providing some medical assistance for one group of unorganized dyeworkers, workers exposed to a chemical that was banned in more civilized countries, and in your State of Pennsylvania, but not in South Carolina and Georgia, in pre-OSHA days.

We have been assisting in an NCI funded program we developed in Augusta, GA. Donald Millar requested funds unsuccessfully to supplement his budget this year for the purpose of conducting the program of risk management we have successfully demonstrated, not only in Augusta, but also in Port Allegheny, PA, in the national pattern makers program, among shipyard workers and among asbestos insulation workers.

The primary reason given by the Department for the denial of funds had to do with compensation economics, a concern outside the mandated objectives of the U.S. Public Health Service, not with the saving of human life.

The fear by NIOSH personnel of political interference from the Office of the Secretary is reflected in the fear of cooperating NIOSH scientists to fully acknowledge that the high-risk management projects in which they have participated were initiated by unions, designed by unions and conducted by unions through our Workers' Institute for Safety and Health.

The nut of the problem is that while existing general provisions of the Public Health Law enable the program you envision in your bill, without specific instruction, no administration, now or in the past 15 years, has been able to withstand the political pressures of the trade associations and the lowest common denominators among their members.

This is reflected in positions being taken within the Department of Labor and the Department of Health and Human Services on your bill.

Having said that, sir, I would to introduce Mr. Sheehan.

[The prepared statement of Sheldon W. Samuels follows:]

PREPARED STATEMENT OF SHELDON W. SAMUELS, DIRECTOR, HEALTH, SAFETY & ENVIRONMENT, INDUSTRIAL UNION DEPARTMENT, AFL-CIO

Mr. Gaydos, distinguished members of the Committee and staff, I would like to begin this testimony by referring to a Report of the New York State Health Commission to the Governor.[1] The Commission recommended (urged by the State Federation of Labor), in view of "new chemical compounds . . . constantly being developed . . .", regardless of our lack of perfect knowledge, nevertheless "workers are entitled to know . . . they must not be kept in ignorance," about their current and past exposures to toxic substances. In order to aid in the promotion of their health, to protect workers from job discrimination and difficulties in workers' compensation claims, medical examinations were recommended for workers at risk, "the record of such . . . to be supplied only to the [worker]" to meet four needs: "early detection", "assist in safeguarding" the workplace, "protect fellow workers and public from economic disaster" and to "guide (the) employee in selection of his occupation."

The Governor was Franklin D. Roosevelt. That report, Mr. Gaydos, was written more than half a century ago. At that time, the Commission believed that existing scientific information was adequate for action. There were, and are, questions of medicine and science to be answered, but there will always be questions. But action has not been taken. Meanwhile, uncounted millions of workers exposed to a broad range of environmental hazards have been denied access to the same public health measures that brought tuberculosis under control, saved thousands of lives at risk of cancer, and is responsible for the current significant reduction of heart disease: early warning, early detection, early health promotion and early treatment.

The reason is quite simple: high government officials, company executives or others are empowered to demand and receive the fruits of scientific inquiry paid for by public monies and carried out in public institutions. Workers are told to bear "acceptable risks" no matter how unnecessary. Workers who are unconscionably but consciously being sacrificed as a matter of corporate convenience are being told (by the Chemical Manufacturers' Association, for example) that the risks need not be reduced, only their perceptions of risk.

When OSHA was passed, it was obvious that between the programs of prevention and compensation a legislative gap remained. That is, the medical arm created by the act -- NIOSH -- was not specifically instructed to provide a program to save through medical and social services the lives of workers who because of conditions in the past, and even a perfect OSHA in the future, are in a limbo of residual risk.

At the time the Act went into effect, it was very clear that a program of intervention utilizing established public health techniques was needed to assist workers in populations at risk, but NIOSH did nothing. A few courageous government scientists, such as William Johnson of NIOSH, and conscientious academicians, such as Irving Selikoff of Mt. Sinai, told us of populations requiring immediate assistance. With our own resources, those of management when we could negotiate such programs, and funds from the National Institutes of Health (NCI and NIEHS), those programs were begun.

Even *post facto*, minuscule support from NIOSH has been difficult to achieve because of political pressures from higher levels of the bureaucracy. Yet, every director of NIOSH, especially Dr. John Finklea, has worked to gain funds and support from the agency which should have led the way -- the Centers for Disease Control of which NIOSH is a neglected division. Anthony Robbins succeeded in providing some medical assistance for one group of unorganized dye workers we have been assisting in an NCI-funded program we developed in Augusta, Georgia. Donald Millar requested funds unsuccessfully to supplement his budget this year for the purpose of conducting the program of risk management we have successfully demonstrated, not only in Augusta, but also in Port Allegheny, Pennsylvania, in the national Patternmakers program, among shipyard workers and among asbestos insulation workers. The primary reason given by the Department for the denial of funds had to do with compensation economics, not with the saving of human life.

The fear by NIOSH personnel of political interference from the Office of the Secretary is reflected in the fear of cooperating NIOSH scientists to fully acknowledge that the high risk management projects in which they have participated were initiated by unions, designed by unions and conducted by unions through our Workers' Institute for Safety and Health.

The nut of the problem is that while existing general provisions of the Public Health Law enable the program you envision in your bill, without specific instruction no administration now or in the last 15 years has been able to withstand the political pressures of the trade associations and the lowest common denominators among their members. This is reflected in the positions being take in the Departments of Labor and of Health and Human Services on your bill.

When you, Mr. Gaydos, called us into your office last spring to tell us that you wanted to introduce this legislation, you made very clear that these hearings would be a serious attempt to extract a broad spectrum of viewpoints. At a later date we would like an opportunity to supply a detailed refutation of the frivolous criticisms of the Administration. But, as you predicted, not all the criticisms are frivolous.

The attack on this bill by the Administration is being coordinated by the Office of Management and Budget in the office of the President. See the attached. A complete refutation of all the points raised in those documents will not be attempted here. But let me highlight the most outrageous.

The Department of Labor, following the instructions of the trade associations, takes the ludicrous position that their hazard communications standard already provides the program of intervention in H.R. 1309. First, the OSHA standard does not apply to all current workers and not at all to past employees. Second, the standard relies on information supplied by the companies, even though they know (from a California OSHA study) that 80% of company material safety data sheets are incomplete. Third, DOL has no responsibility, capacity, interest or knowledge of the kind of complete worker-family-community surveillance system contemplated by the Act. Fourth, the Department talks about the adequacy of medical monitoring provisions in the permanent health standards. At the same time, they are working with OMB on the elimination of these provisions.

The real concern of the Department stems not from a concern for workers, but for employers and their insurance companies. While they say the systems of public and private health and compensation insurance are adequate, they are telling you not to initiate programs that would actually use the insurance. Perhaps we are getting a glimpse of what the Department really believes: that the systems are adequate only for the collection of premiums, not the payment of claims. Meanwhile, in order not to use the systems, workers should suffer and die unnecessarily.

The Department of Health and Human Services -- if this is possible -- takes an even more ludicrous position. They are saying that in general their own centers of occupational and environmental medicine, which they have supported with hundreds of millions of dollars (and which would collect fees directly or indirectly from workers for the services contemplated by this bill), "do not have the expertise to conduct surveillance and to provide medical treatment and family services to employees . ." Nor do they "consider this to be an appropriate Federal role." I once served very proudly in the United States Public Health Service. That once-dedicated organization has been politicized to the point of shame.

Both Departments reject the notion that workers -- even at their own expense -- should have the right of access to life-saving information known by the scientists they have supported with taxes in public institutions. Workers, apparently, only have the right to continue to die for another half-century under circumstances convenient to a government that extracts money from them for life-saving research and services to be used only at the discretion of the modern patrones.

The paternalistic testimony of the Medical Director of Dupont implies a question the answer to which is fundamental to the kind of society in which we wish to live. The founder of his company, Dupont de Nemours,[2] took issue with Thomas Jefferson's views of the capacity of the common man to be educable and to think for himself. Jefferson rejected Dupont's views of the people as "children" who had to be managed by self-appointed rulers such as the Duponts. Clearly, Jefferson's answers to this day have not satisfied the aristocrats in Wilmington. Knowing you, I am sure this Committee will reject these anti-democratic attitudes. But we are dealing with more than persistent philosophic differences. There are very practical consequences of Dupont-style paternalism to be avoided; that is, we need to avoid perpetuating a milieu in which the ethical implementation of programs such as those contemplated in your bill cannot take place.

What is an appropriate milieu for the management of populations at risk of an occupationally attributed disease? In the past, labor bargained for management to invest in plant medical resources. Unfortunately, labor failed to achieve the independence of those resources.

A study by the Conference Board[3] found that even many corporate physicians are troubled by "insufficient management interest in employee health and health care programs, and by insensitivity to ethical standards." These company physicians make these specific charges:

1. Programs are often inadequately staffed, funded, and supported by management.
2. Management often insists on seeing results of periodic health examinations or on receiving other specific information on the health of employees -- and sometimes does.

3. Sometimes there is pressure from management to interpret work-related disorders as stemming from non-occupational causes.
4. The company doctors' participation in the hiring and firing process conflicts with their role as physicians.
5. Discoveries of hazards in the work environment are sometimes not made known because management is unwilling to admit past errors and run the risk of being held liable for their consequences.

Clearly, the conflicting roles of the occupational physician as agent of the company and provider of patient services may often result in the absence of a patient-physician relationship.

The absence of a patient-physician relationship may result in the absence of an unambiguous duty of the physician to uncover disease, disclose medical data to the patient, advise the employee of risks of further exposure, and protect the confidentiality of the information disclosed and the advice given.

Acceptable patient-physician relationships, which are essential to effective medical surveillance, cannot usually be developed and maintained in a setting in which confidentiality and trust between the doctor and the worker are secondary to the interests of the corporation. Confidentiality, access to records for research, treatment, compensation, and physician independence must be guaranteed.

An ethical axiom we must derive from this reality is that a new system of industrial health care must be created in the most neutral context available. That is exactly what your bill initiates.

Important questions have been raised by Mr. Lamm of the NAM, which finds echoes in the Administration's position and in the paternalism of Dupont. One has to do with the "trigger" or criteria based on relative risk and other methods for selecting the populations of workers to be notified and assisted.

Mr. Lamm incorrectly attacks identifying populations by the determination of relative risk. He favors a method called "absolute risk", which would result in fewer notifications. The bill enables judgements by a panel of government scientists who hopefully will have the expertise to make use of every fruitful method of analysis and source of information in accordance with good scientific practices. The bill correctly makes no attempt to write a textbook for the experts.

Nevertheless, the first step contemplated by the bill under optimal conditions is correct; that is, the calculation of incidence rates that measure "the risk that an individual will get the condition of interest. Relative risk is the ratio of incidence rate in the exposed to incidence rate in the unexposed group[4]. . . A derived statistic that helps to interpret the relative risk is the attributable risk."[5]

"Each of these estimates of risk [relative and absolute or attributable] has its own set of advantages and disadvantages. In general, the magnitude of the relative risk is considered a better indicator than is the attributable risk of the likelihood that a causal relationship exists between a health hazard and the disease being evaluated. This is so because errors of measurement or biases due to other influences are less likely to produce large differences in relative risk than they are in attributable risks."[6]

"The usefulness of attributable risk in assessing strength of association is lessened by the fact that it does not measure closeness of association alone. Its magnitude depends on the numbers affected by the disorder as well."[7]

Now I, like you, Mr. Gaydos, am not an expert in epidemiology. Who should guide us? Leading scientists in that field (four of whom I have just quoted) or tame technicians paid by the bill's critics to find holes in the legislation, even if they do not exist?

Mr. Lamm of the NAM raises two ethical issues: Should we notify those who may not actually be in danger and should we notify those actually at risk and clearly in danger when (in the opinion of some) nothing can be done to help them?

No method of defining populations at risk allows us to make a determination of actual risk for each and every member of the population. Under this legislation, there will be populations containing individuals at actual risk who will not be warned because of the 30% criterion, which perhaps should be lowered to 20%. Even at 20%, however, some would be missed. Some workers at risk will not be subjects of epidemiological studies. The population data we need may not always be there. That is why other factors (enumerated in the bill) have to be taken into account. Even then we would miss notifying thousands of workers at actual risk. Epidemiologic studies of small populations may not be adequate in any case, which is why laboratory and clinical evidence must be used. There is no perfect system. There will be errors of notification, but errors that take no lives as would a denial of notification.

Conversely, even if the risk for the population is demonstrably a hundredfold or more in excess, there will be some individuals who are not at actual risk. Moreover, being at actual risk does not mean that the individual will contract or die of the disease.

What is the basis, then of the action to be taken? The basis is the added burden of risk, i.e. of possible disease associated with their work which every member of a population at increased risk shares. That fact, with all of the qualifiers appropriate to dealing with possibilities, is what the bill contemplates communicating. It was precisely that fact which has been successfully transmitted, without harm to the unafflicted, in a national demonstration of asbestos-exposure notification conducted by NCI among hundreds of thousands of Social Security recipients.

The ethical axiom[8] is very clear: our inability to identify with certainty those individuals who will become ill or die because of an occupational exposure means that we must treat _all_ members of the population _as if_ they are equally at risk and will inevitably suffer without aid. Failure to do so makes probable that at least some would otherwise die because they were not warned.

The answer to the second ethical question, notification of those for whom the perceived prospects for successful intervention are low or even nil, is also very clear. We never know that nothing can be done. We do know that most known actual risks _are_ reducible _before_ disease occurs. While the occurrence of disease is never totally certain among all those exposed, the reduction of risk is the whole point of the preventive provisions of the proposed legislation. An additional fact is that workers exposed to the initial list of hazardous agents are at risk of cancers (with the exception of mesothelioma) and other diseases associated with the hazards of work which _are_ treatable or _will_ be treatable with increased chances of survival _if detected early enough_! In the case of mesothelioma, we -- not the government -- have initiated a coordinated research program under Dr. Selikoff's guidance to find a treatment for a disease not important enough to the Public Health Service for a high priority. After all, generally only workers and their families are afflicted with this inoperable cancer.

Not to offer workers opportunities for risk reduction or early detection of disease is to sentence at least some to unnecessary death and suffering. That sentence is an "acceptable" risk the trade associations and their allies in government insist on imposing on American workers. We hope you share our view that it is not a risk that should be accepted by the workers of this nation and their Representatives in Congress.

FOOTNOTES

[1] *Public Health in New York State*. Report of the New York State Health Commission. Albany. 1932.

[2] Letter to Dupont de Nemours, Poplar Forest, April 24, 1816, Memorial Edition, XIV, p. 487.

[3] *Industrial Role in Health Care*. Conference Board. New York. 1974.

[4] Philip E. Sartwell and John M. Last. "Epidemiology" in *Maxcy-Rosenau Public Health and Preventive Medicine*. 11th Edition. John M. Last (ed.), p. 50.

[5] *Ibid*., p. 52.

[6] Robert Hoover. "Identification and Quantification of Health Hazards in Populations: The Epidemiologic Assessment of Risks", in *Scientists' Forum on an Assessment of the Scientific Base Related to Victim Compensation at the National Science Foundation*. Jan. 27, 1982. Institute on Man and Science. Rensselaerville, NY, p. 32.

[7] Mervyn Susser. *Causal Thinking in the Health Sciences*. Oxford University Press. 1973, p. 150.

[8] Sheldon W. Samuels. "Ethics and Ethical Codes in Occupational Medicine" in *Environmental and Occupational Medicine*, W.N. Rom (ed.), Boston, 1983, pp. 971-975; *and* "Medical Surveillance: Biological, Social, Ethical Parameters" in *Journal of Occupational Medicine* and *NIOSH* (in press); *and* "The Environment of the Workplace and Human Values" in *American Journal of Industrial Medicine*, January 1986 (special issue).

Mr. **Sheehan**. Thank you, Shelley.

Mr. Chairman, my preference this morning is merely to reiterate a position that was previously to the committee by the IUD, and the statement you have before you is presented on the indication that we are in total support of this bill, and obviously of the intent of the bill.

The High Risk Occupational Disease Notification and Prevention Act is an essential bill, because it helps address a complex series of problems associated with occupational health in the United States.

In the testimony, we identify a number of substances that are both carcinogenic and noncarcinogenic, substances that we are all very familiar with, benzene, asbestos, arsenic, chromate pigments, and nickel.

We also identify other issues, cotton dust, and silica dusts. And also, Mr. Chairman, you are well aware in your area of exposure to coke oven emissions, which was, I think, one of the compelling reasons to push the steelworkers into the drive for the adoption of the OSHA Act of 1970.

We indicate in the statement, Mr. Chairman, that one of the more important factors upon which this legislation depends in the fact that in occupational disease, there is such a thing as the latency period.

That latency period may give us the opportunity to intervene to prevent the disease from really developing into a chronic situation.

OSHA tries to prevent exposure, but, Mr. Chairman, we are well aware that exposure has occurred, either to those workers prior to the enactment of OSHA, and prior to standards, or, I must say unfortunately, because OSHA is not keeping up with the task of promulgating standards.

So, therefore, we do have another element in this equation; namely, the possibility of intervening before the disease becomes irreversible.

And so, this legislation builds on that fact, indicates there is this latency period, and because of that, through the notification of workers exposed, we might have the chance to do something about the individual worker's possible situation, to reverse the effect of the exposure.

I think, basically, Mr. Chairman, the act, then, is a—the testimony is a continuation of that explanation. However, if you will permit me just one small diversion.

I left my office today with the records of a hearing that occurred in the Senate in 1979. At that time, Senator Javits was pursuing this very element himself. He was recognizing that the OSHA activity of promulgating standards was a long one, an arduous one, there was a lot of due process involved, a lot of technicians, very difficult to get a standard promulgated.

There may be no fault with that, it is the reality in the world. And Senator Javits was saying, "Is there not something else we could do?" And he indicates, "Should we not consider another approach?"

Incidentally, he puts in right away, not as an alternative, but as a complement of finding some way of requiring periodic health examinations by employers of employees, of what we can designate as hazardous environments for the workers.

In other words, should we not try to help the worker with these long-distance, long-range incubations of industrial disease by requiring some form of medical examination? Then, at least the worker would know a lot sooner than today as to the cause of his conditions.

The Senator continued this inquiry at another part in the record, and he says,

> Could we not standardize the matter of examinations for workers who are within a hazardous environment? We certainly know that there are hazardous environments, could we require an annual examination of workers to deal with the particular hazards that they are faced with within their occupational environment?

The answer, by the way, was also I think rather significant, it was given by a Dr. Vernon Rose, who at that time was the Director of the Division of Criteria Documentation Standards Development at NIOSH, and the brief comment to his answer, Dr. Rose says,

> Yes, Mr. Senator, because you were wise and the Congress at that time was wise enough, you created the Act to identify that a standard is not just an environmental limit, such as 200 micrograms of cotton dust, it may include other factors, even medical examinations.
>
> A standard could start out with, for instance, advise the workers that they are at risk, give minimal examinations, and later on, add all other things such as definitive permissible environmental levels.

It seems to me, Mr. Chairman, your legislation today is intervening at that part of the process and saying, OK, let's go with the possibility of notifying these workers and getting about the job of helping them, even though we may not have a standard in there that prevents their exposure at this time.

Thank you.

[The prepared statement of Jack Sheehan follows:]

PREPARED STATEMENT OF JACK SHEEHAN, LEGISLATIVE DIRECTOR, UNITED STEELWORKERS OF AMERICA

Mr. Chairman, members of the Subcommittee. My name is Jack Sheehan and I am the Legislative Director of the United Steelworkers of America.

At the outset let me say that our union strongly supports H.R. 1309, the High Risk Occupational Disease Notification and Prevention Act. We urge you and your Subcommittee to consider this legislation as expeditiously as possible. We believe that this bill is essential in successfully addressing the complex set of problems associated with occupational disease in the United States.

As you are well aware, millions of workers are regularly and needlessly exposed to toxic chemicals, wastes, fumes, dusts, and industrial processes as an integral part of their jobs. Over time, such exposure causes a variety of occupationally-related diseases, such as cancer, heart disease, nervous and brain disorders, reproductive damage, miscarriages, birth defects in workers' children, and a host of others. For the most part, death and disability associated with these occupational diseases are not compensated by the existing state-based workers' compensation systems.

The exposed worker populations include millions of workers exposed to cancer-causing substances or processes, including:

- 3 million workers exposed to benzene, with a risk of leukemia up to five times greater than normal;

- 2.5 million workers exposed to asbestos, many with a risk of lung cancer five times greater than normal;

- 1,500,000 workers exposed to arsenic, many of whom have a risk of lung cancer often two to five times greater than normal;

- 725,000 workers exposed to chromium and chromate pigments, some with a risk of cancer five to nine times greater than normal; and

- 1.4 million workers exposed to nickel, some with a risk of cancer five to 10 times greater than normal.

Examples of other non-carcinogenic, but nevertheless dangerous, workplace exposures include:

- 1 million women workers of childbearing age exposed to chemicals that cause miscarriage and birth defects;

- 1 million workers exposed to silica dust, at risk of lung disease; and

- 800,000 workers exposed to cotton dust, at risk of brown lung disease.

As you well know, Mr. Chairman, we in the Steelworkers have had very serious problems with coke oven emissions, which before the emissions were controlled by the OSHA Standard, were causing lung cancer in our members at the rate of 10 times greater than normal.

These and many other hazardous workplace exposures take a terrible toll on American workers. Some 100,000 die and another one million may be disabled each year from occupational disease. Indeed, of all the cancers that occur among blue collar workers in the U.S., at least 25 percent are caused by workplace exposures.

Attached are two registers maintained by the AFL-CIO Industrial Union Department on carcinogens, cardiotoxins and estimated populations at risk.

In terms of the relationship between toxic workplace exposure and occupational disease, I would like to make the following observations:

First, there is a period of time between exposure and the onset of disease when it is often possible to medically intervene in the biological process of disease to either prevent or, by early detection, successfully treat many disease conditions.

Second, we already know that there are a number of identifiable occupational populations that are at risk of developing diseases because of hazardous occupational exposures.

Third, there is a critical need for a national program for identifying, notifying, counseling, and medically monitoring worker populations at risk of occupational diseases.

Fourth, we believe that workers have a basic and fundamental right to know that they have been exposed to an occupational hazard and are at risk of contracting an occupational disease.

Finally, through prevention and early detection of occupational disease, the staggering costs of medical treatment and care in the United States can be substantially reduced.

The legislation that you have introduced will go a long way in addressing the occupational disease problem in the United States.

The purposes of H.R. 1309 are:

- to expand federal research and define worker populations at risk of occupational disease;
- to establish a federal program to notify individual workers within populations at risk of their disease risk;
- to authorize and direct the certification of occupational and envrionmental health centers throughout the U.S. and to provide for medical surveillance and monitoring programs; and
- to protect workers identified and notified that they are at risk of disease from employer or insurance discrimination.

Surveillance and Research

The bill requires the Secretary of Health and Human Services (HHS) to conduct research into improving the means of surveillance of workers exposed to occupational health hazards, and the means of medical monitoring and treatment of workers exposed to occupational hazards.

It also requires the Secretary of HHS to undertake additional research to identify and define additional worker populations at risk of occupational disease.

Notification and Counseling

After a determination that a worker population is at risk of occupational disease, the Secretary is required to notify each individual of the risk along with its nature and potential medical impacts, and to provide appropriate counseling information, including the need for medical examinations.

Health Centers

The bill directs the Secretary to select from existing health facilities an appropriate number to be established and certified as occupational and environmental health centers on the basis of their ability to recognize, diagnose and treat occupational disease.

The centers will provide medical monitoring examinations and allied services for workers notified by the Secretary that they are at high or increased risk of occupational disease.

The actual costs of the medical monitoring examinations are to be paid for by the existing health care financing system.

Employee Discrimination

The bill protects employees from being discriminated against in their employment by employers, insurance carriers or any other person on the basis of the notification from the Secretary of a disease risk.

If based upon the risk, a worker must be transferred to another job, all of the benefits of the first job transfers with him, including rates of pay and seniority.

In addition, the health care financing system may not discriminate in the payment of the costs of medical monitoring examinations or treatment.

Enforcement

Under the bill, the Secretary may bring action against violations of the Act in federal court, including injunctions and/or restraining orders.

Mr. Chairman, this is a good bill. It is a workable bill. It is a reasonable bill and we believe that it is a bill that should be expeditiously considered by the Committee and the full House.

TABLE I

CARCINOGENS/CARCINOGENIC PROCESSES AND EXPOSED WORK POPULATIONS AT RISK

Unregulated as Carcinogenic	Population at Risk	Regulated as Carcinogenic	Population at Risk
Auramine***	3,000	2-Acetylamino-fluorine	E
Benzene***	2,976,000	Acrylonitrile	125,000
Benzidine, dianisidine, and tolidine-based dyes	N	4-Aminobiphenyl***	E
Beryllium	30,000	Asbestos***	2,479,900
Boot and Shoe***	N	Benzidine***	2,200
1,3-Butadiene	50,000	bis-Chloromethyl ether***	E
Cadmium	100,000	Coke oven emissions	10,000
Carbon tetrachloride	56,500	1,2-dibromo-3-chloropropane (DBCP)	N
Chloroform	80,000	3,3'-Dichloro-benzidine	E
Chloroprene	2,500	4-Dimethylaminoazo-benzine	28,600
Chromate pigments	550,000	Ethylene oxide	100,000
Chromium and compounds***	175,000	Ethyleneimine	4,500
Coal gasification	E	Inorganic arsenic*** (and compounds)	1,491,700
Cutting oils (nitrosamines)	780,000	Kepone	E
4,4'-diaminodiphenyl-methane (DDM)	2,500	Methyl chloromethyl ether	E
Dianisidine	N	alpha-Naphthylamine	46,400
Diesel Fumes	N	beta-Naphthylamine***	1,000
Dimethylcarbamylchloride (DMCC)	E	4-Nitrobiphenyl	E
Epichlorohydrin	85,000	n-Nitrosodimethylamine	E
Ethylene dibromide	660,000	beta-Propiolactone	E
Ethylene dichloride	34,000	Radiation, Ionizing	N
Ethylene thiourea	3,500	Vinyl chloride***	3,546,700
Formaldehyde	100,000*		
Furniture***	348,000		
Underground Hematite mining***	N		
Hexamethylphosphoric-triamine (HMPA)	5,000		
Hydrazine and salts	100,000		
Isopropyl refining***	141,000		
4,4-Methylene bis (1-chloroaniline) (MOCA)	67,200		
Methylene chloride	70,000		
Mustard Gas***	E		
Nickel (oxides)	1,400,000		
Nickel refining***	N		
2-Nitropropane	100,000		
n-Phenyl-beta-naphthylamine	15,000		
Polychlorinated biphenyls (PCB)	12,000		
Rubber products***	N		
Shale oil extraction	E		
Soots, tars and oils***	500,000		
Tolidine	N		
Trichloroethylene (TCE)	280,000		
Uranium mining & milling	N		
Vinyl bromide	26,000		
Vinyl fluoride	32,000		
Vinylidene chloride	58,000		
Welding fumes	800,000		
Woodworking	534,000		

Notes:

N, no satisfactory estimates at this time

E, estimates of less than 1000 workers exposed

***On the incomplete human carcinogen/carcinogenic process list of IARC (WHO)

*Direct production

Source: Health, Safety & Environment
Industrial Union Dept., AFL-CIO

7/9/85

TABLE II

CARDIOTOXIC AGENTS[1] AND EXPOSED WORK POPULATIONS AT RISK

CARDIOTOXIN	POPULATION AT RISK
2-Aminopyridine	N
Acrylonitrile ***	125,000
Antimony	1,400,000
ANTU (alphanapthyl thiourea)	N
Arsenic, inorganic (& compounds)***	1,491,700
Azinphos-Methyl (guthion)	N
Barium, soluble compounds	N
Boron Trifluoride	50,000
P-tert-Butyltoluene	N
Cadmium[2]***	100,000
Carbon Black	35,000
Carbon Dioxide	2,000,000
Carbon Disulfide	20,000
Carbon Monoxide	N
Carbon Tetrachloride***	56,500
Chloroform***	80,000
Chloroprene***	2,500
Cobalt, metal fume and dust	1,000,000
Cresol	11,000
Cyanide	N
Cyclohexane	N
Demeton (Systox)	N
1,1-Dichloro-1, Mitroethane	N
2,4-Dichlorophenoxyacetic acid (2,4-D)	N
Dichlorodifluoromethane	N
Dichlorovos (DDVP)	N
Dimethyl Formamide	N
Dimethylsulfate	N
Dimethyl-1,2-Dibromo-2,2-Dichloroethyl Phosphate	N
Dinitro-Ortho-Cresol	3,000
Dioxane	2,500
Diphenyl	N
Ethyl-P-Nitrophenyl Thionobenzene Phosphate (EPN)	N
Epichlorohydrin***	85,000
Ethyl Chloride	N
Ethyl Silicate	N
Ethyl Amine	N
Ethylene Bromide***	9,000*
Ethylene Oxide***	100,000
Fibrogenic Dusts	N
Fluorocarbons	5,000
Fluorotrichloromethane	N
Hydrogen Fluoride	22,000
Hydrogen Sulfide	125,000
Hydroquinone	250,000
Iodine	N
Ketones	3,000,000
Lead[2]	N
Malthion	N

TABLE II (con't.)

CARDIOTOXIN	POPULATION AT RISK
Methyl Acetate	N
Methyl Chloroform	N
Methylene Chloride***	70,000
Nickel, Inorganic***	250,000
Nicotine	N
Nitrates[2]	N
Nitriles	N
Nitrogen Triflouride	N
Nitroglycerin and Ethylene Glycol Dinitrate	8,000
Nitrogen Dioxide	N
2-Nitropropone***	100,000
Noise[2]	N
Organotin Compounds	30,000
Paraquat	N
Parathion	250,000
Phenol	10,000
Phosgene	10,000
Phosdrin	N
Radiation, Ionizing[2]***	N
Selenium Compounds	N
Silicon Dioxide	N
Soapstone	N
Sodium Fluoracetate	N
Sulfur Pentafluoride	N
Talc	N
TEDP (tetraethyl dithionopyro phosphate) TEPP	N
Tellurium	N
Temperature (Heat/Cold)[2]	N
Tetrachloroethane	5,000
Thallium, soluble compounds	N
Trichloroethane	100,000
Trichloroethylene***	280,000
Triethylamine	N
Trinitrotoluene	N
Vanadium Pentoxide	N
Vinyl Halides	N
Xylene	140,000
Xylidine	N
Zinc Chloride Fume	N
Zinc Oxide Fume	50,000

Notes:

[1] Unless otherwise noted, substances are listed in NIOSH Criteria Documents and Occupational Health Guidelines as having cardiovascular effects.

[2] Identified in Rosenman, K.D.: "Cardiovascular Disease and Work Place Exposures" Archives of Environmental Health 39:3, 218-224, 1984.

* Direct Production

*** Also listed as carcinogenic (See Table I).

N,no satisfactory estimates at this time

Source: Health, Safety and Environment
Industrial Union Department, AFL-CIO

7/11/85

Mr. **Gaydos**. I want to thank you, Mr. Sheehan.

Let me at this time pause and have our members ask any questions before we complete the panel, if that is their desire.

Mr. Hayes at this time? Any questions of Mr. Sheehan or Mr. Samuels?

Mr. **Hayes**. Thank you, Mr. Chairman. I don't have any questions. I am suffering from an occupational hazard of a politician. I can't talk very well.

Mr. **Gaydos**. With that respite, then, we will go to Mr. Chandler.

Mr. **Chandler**. What we ought to do is create a piece of legislation that will notify all former politicians that they are in a high-risk category.

Probably it would be best, Mr. Chairman, at this point in time, to go ahead—as far as I am concerned—with the rest of the witness' testimony, and then we can go back and ask questions.

Mr. **Gaydos**. Mr. Petri.

We know you have to leave.

Mr. **Petri**. I have to leave for another hearing, so I appreciate the opportunity——

Mr. **Gaydos**. That is one of the reasons why I kind of broke into this scenario. Go ahead, Mr. Petri.

Mr. **Petri**. Just one area, and it may be covered in later testimony, and if so, forgive me.

I am wondering if this sort of thing is done in some of the States or by the Federal Government itself, where people are employed on Federal projects in hazardous lines of work?

That is to say, sometimes it is a good idea to see how something works and how to do it best by experimenting and starting small and then expanding. I am curious whether with our work with nuclear materials, or in various contract situations, or at the State or local government level, there are these kinds of protections. Are you aware of some companies that have exemplary approaches that you think we could use as a model or learn more from, or other countries even?

I am just curious to know.

Mr. **Samuels**. Dr. Miller has specific testimony this morning on that. I would hope that he would be able to answer that question when he testifies.

Mr. **Petri**. Thank you.

Mr. **Gaydos**. Who wants to respond to that, for Mr. Petri's convenience?

Dr. **Miller**. First, with respect to the Federal Government in other areas notifying or not notifying people, first, let me say that I am the occupational health physician for the Oil, Chemical and Atomic Workers International Union.

We represent about 10,000 people in the atomic sector. Obviously, these are DOE facilities. These people are working around radiation which is the longest known carcinogenic hazard, and still, we have recent evidence which I summarize somewhat or mention in my testimony, that the DOE is contracted to do studies which have found people to be at high risk for certain occupational illnesses, brain cancers, lung disease from inhaling uranium dust, uranium miners who die at an excessive rate from lung cancer, and none of these people have been notified.

We have started an initiative within the union, and across union lines, because many unions are employed in different trades within DOE facilities, to address this problem. I know of no other Government program other than the one that I am about to speak about, that has done this.

Without preempting my whole testimony, just let me say that a few years ago, I was employed by the Workers' Institute for Safety and Health, which is an organization here in Washington that addressed safety and health issues on behalf, generally, of the labor movement.

We were a recipient of a National Cancer Institute grant to set up three model notification projects, each a different model, funded through different mechanisms, to address just the question you are asking.

This came about largely because—I mean, there is a whole history to this that I am probably not going to be able to summarize——

Mr. GAYDOS. If you don't answer that question pretty soon, he is going to be leaving.

Dr. MILLER. So we did basically set up these three model programs which was funded by the National Cancer Institute. As I said, this came about because there was a large list that NIOSH had of studies that they had done that had found workers to be at high risk, and they were struggling within the agency to find a way to notify these people; how are we going to do it, are we going to scare these people or not; and address all the real life problems that people face in getting medical screening done.

And we developed those programs. They still are functioning. They have been very successful in terms of showing that it can be done without generating excessive fear, without generating excess bureaucracy, can be nested within the existing medical care community, and many other questions that, you know, can arise from these problems I think have been addressed by one model or the other.

And, as far as I am aware, these are the only notification projects, model demonstration projects that have been done, to knowledge, to date. I don't know if anybody else would like to comment. I hope that answers the question.

Mr. SHEEHAN. Perhaps I could just add a brief comment, Mr. Petri.

I think you are looking for models as to where what is contemplated in this bill on a broad basis may also now be in place in certain sectors. One thing, I think, you will notice in the testimony previously given to you, has been the reiteration that under OSHA, there are many OSHA standards that do require a certain group of workers who, under the rulemaking procedure, are now being required, or now being eligible for these kinds of medical monitoring and services, and the employer being required to supply them.

Perhaps you might then find more fruitful as to what has been the experience of those groups of workers who now, by an OSHA regulation, have been experiencing this type of service.

But the important thing to note, though, in our presentation today, is that we are claiming that the rulemaking process of OSHA, which up to now engages many more factors in the standards than just merely the medical monitoring, it becomes a complete standard, and that by its very fact at least has slowed down the rulemaking process.

But we do have a number of instances where workers are undergoing this kind of a program. All we are indicating to you here, and obviously the testimony of some of our employees, we are doing it anyhow in our plan. We are extrapolating from that and saying it is in place in certain places, sometimes by way of an OSHA regulation, but let's now move across the board where we have known hazards.

Mr. SAMUELS. Let me, if I may, just add to the comment before you go in two ways. First, I had mentioned cotton dust standards. Jack has referred to standards. I am now reading from a memorandum distributed by OMB, which they may not give to you, because it flies in the face of their position on the cotton dust standard:

> Medical surveillance programs which facilitate the transfer of ill workers while the disease is still reversible is the greatest contributor to the successful prevention of 5,000 cases of byssinosis.

The second comment I would like to make is that yes, companies are doing something. There are some problems with leaving it to the employer, and that is in our testimony.

Mr. GAYDOS. Is it agreed, then, that we will continue on with the other witnesses? If so, Mr. Samuels?

Mr. SAMUELS. Dr. Mirer is next.

Mr. MIRER. Mr. Chairman, members of the committee, I am Dr. Franklin E. Mirer, I am an industrial hygienist and toxicologist, director of the Health and Safety Department of UAW.

Mr. Chairman, I would like to summarize my written testimony, but I would like it if the entire testimony could be placed in the record.

Mr. GAYDOS. Without objection, it has been agreed that all the submitted testimony in written form would be made part of the official record, and without objection, so ordered again, and you may proceed in summation.

Mr. CHANDLER. If I could, Mr. Chairman, just at this point, I would like to point out that we just received Dr. Mirer's testimony, and that of Dr. Silverstein last night at 5:00, giving us really no time to review the statements and prepare questions. It would be very helpful to us if we could receive those documents earlier, so that we could have an opportunity to study them.

Mr. MIRER. Mr. Chairman, we apologize for the delay in getting the testimony here.

Mr. GAYDOS. Let the record show that there are a certain set of rules this committee has, and I would like to caution those that will be appearing before the committee, please try and make every effort to adhere to the rules.

We know that emergencies do exist, but for convenience, I don't think we can go along with that, so let the record show that the rules will be enforced as written, and we encourage all of our volunteers that appear before us to submit their testimony on time.

Nothing personal against you, Doctor, so go ahead.

Mr. MIRER. Well, I repeat my apology.

Mr. **Gaydos**. Mr. Chandler is very correct, because proper questions can't be framed, and the individual doesn't have an opportunity to get into a real good analysis of what you say. It kind of like puts a sprag in the thing, so I am sure everybody understands that, however we will continue on.

Mr. **Mirer**. Mr. Chairman, my remarks today will attempt to place the issue of notification of workers at high risk within the total context of the occupational disease problem today.

Dr. Silverstein, occupational physician in the Health and Safety Department of the UAW will address specific needs for an effective initiative in high-risk notification and prevention.

The UAW supports legislation to provide notification and preventive services for workers at high risk to occupational disease, because of the obvious rights of these workers to know about their danger, the humanitarian need to provide preventive services, and the large public health improvements to be gained from such an intervention.

The Federal Government, in our view, is the most effective agent to launch and oversee such an effort, especially since the private sector has demonstrated such a failure to carry out this responsibility.

Now, there is a circle of public health activities needed to control occupational disease. The legislation before this committee today is needed to close that circle.

Now, the sectors of the circle are, first, research, so that we know about the hazards of chemical exposures; testing of all chemicals before they go into production and use; control of exposures through setting standards and seeing that they are adhered to; surveillance of workers exposed to chemicals, to quickly identify adverse effects which may arise from exposures permitted by standards; information and training for workers, the public, and education for professional base of researchers and medical personnel; sixth, the topic which we address today directly, medical intervention for workers who have been affected by chemical exposures, either treatment for diseases or preventive procedures for those at higher risk for disease, who aren't now ill; and finally, compensation for victims.

Each part of this cycle, which includes both scientific and social development, must be attended to if we are to have a cycle of progress. If not, we will simply have a circle of failures if we repeat past mistakes and continue to create new victims.

The UAW believes that progress is being made on some of these fronts, even in the face of full-blown efforts of the Reagan administration, its right-wing allies, and certainly parts of the corporate community, to roll back part I protections, dismantle or weaken the structures of NIOSH and OSHA, and block new public health interventions.

The UAW has previously testified about successes in improving conditions in occupational safety and health. These successes give us optimism for the future, but there are two important warnings.

First, the number of hazards to be addressed is large and growing. New data is accumulating at an increasing rate, and delayed or limited action means lives lost or shortened, or made bitter by preventable occupational disease and injury.

Second, the Federal role has been key in the past in moving this effort forward, and we can't go on forever in the face of hostility and neglect. These will, at some point, these will have caused irreversible damage to enforcement agencies, education programs, and research institutions related to occupational health.

It will then take years to rebuild these structures to be effective again, and those rebuilding years will also bring a cost to lives and health.

The main body of my testimony today is to give you evidence of the breadth of this problem by describing a series of situations in which we have evidence of large numbers of workers at increased risk.

And let me start with those examples. The first has to do with occupational exposure to lead, which has fallen dramatically since OSHA went into action, especially since the new lead standard went into effect.

Previously, every battery plant had wholesale violations of OSHA's old lead standard. Now, some plants, at least, have virtually complied with the new, much stricter standard.

But what about battery workers whose measured body burden of lead places them at increased risk to kidney disease? There are few physicians, including company doctors, in lead using plants, who are trained to understand the effects of chronic lead exposure, and are therefore qualified to treat workers for the current and future effects of past exposure.

And I should add that when a worker leaves employment from the employer who created his lead exposure, even if he goes to work for another lead-using employer, the medical surveillance requirements of the OSHA lead standard no longer applied.

Why? And so that worker is lost to medical surveillance and followup.

Silica exposures in foundries have been controlled to a substantial extent since we got enforcement of the long-ignored standards for silica dust.

Previously, every major foundry had exposures many times that allowed by the silica standards. The big plants were worse than the small ones. Now, major plants are coming close to compliance, although further work and environmental control are still very much needed.

In addition, the present silica standard may not be sufficiently protective, but again, what about the workers with a long exposure history, who are at increased risk for respiratory disease and lung cancer?

It is hard to find a physician who is even trained to read chest x rays for evidence of dust disease, much less provide supportive services, and again, I should add that there is no OSHA standard requiring medical surveillance for workers exposed to silica dust, even those with current exposure.

The occupational cancer problem extends well beyond previous estimates. We have previously reported completed epidemiological studies showing increased cancer risk in a wide variety of operations in the auto industry.

But beyond these epidemiology reports, recent laboratory studies have demonstrated that may of the common materials of industry produced in billion-pound amounts and distributed throughout our society, have the potential to cause cancer and other profound effects on health.

Indeed, for all the focus on cancer, the noncancerous effects of these chemicals, such as kidney, liver, lung, nervous system diseases may be important to our society.

This problem is emerging now because we are just now beginning to get adequate testing of these major use substances in our society.

And to give you a few examples, several years ago, tests conducted by the Chemical Industry Institute of Toxicology showed that formaldehyde, one of the top 10 chemicals manufactured in the world, causes cancer in rats and mice when inhaled.

But levels of exposure which cause cancer were only a small factor of those permitted and present in America's workplace. Workplace exposures are also at levels already well known to cause nonmalignant, noncancerous respiratory disease.

As you know, the UAW and 14 other unions petitioned OSHA for a new standard, and when this was denied, went to court, sued, courts have ruled that OSHA erred in refusing to act, and recently gave OSHA a deadline of October 1st to move on setting a standard, a deadline, I should add, that they have missed.

And as a result of there being no formaldehyde standard, there is now no legal requirement that any employer notify any employee of the risks of formaldehyde exposure, and no legally prescribed medical intervention for workers now exposed.

Prevention for previously exposed workers now at high risk hasn't even been discussed by Federal authorities. Recently, the National Toxicology Program completed a study of the effects of inhalation of methylene chloride.

This common solvent, found in many consumer products and is a trace contaminant in foods, but the highest exposure levels and the longest exposure times are on the job. The NTP study found clear evidence that methylene chloride caused cancer in rats and mice, more disturbing liver and kidney disorders were found in these animals, even at the lowest level of exposure, which was only a few times greater than that now permitted by OSHA.

Therefore, we don't know a safe exposure in animals, and more importantly, we can only guess what reduction in the permitted level of exposure is needed to give any assurance of safety to workers exposed to this chemical.

UAW petitioned OSHA for a new standard in July of this year, and since then, OSHA has done nothing at all, hasn't even given us reasons for not setting a standard.

Recent laboratory tests of petroleum distillates conducted by the American Petroleum Institute, and perchlorothylene, the dry cleaning solvent, conducted by the NTP, demonstrate similar patterns of cancer and noncancerous organ damage in animals at the lowest levels tested, levels of exposure actually permitted in American workplaces.

No action has been taken by OSHA in response to this new, compelling evidence of risk of occupational disease to American workers, including no action as to notification of workers at high risk, or prescription of medical surveillance or followup, which these workers might need.

Now, in my testimony you will see an extended list of other substances which there is very substantial evidence that there is risk of occupational disease, permanent impairment, at levels of exposure permitted by existing health standards.

And not only do we not have control over requirements in place, we do not have medical surveillance suggested for current workers and, of course, nothing in place for workers whose exposure has been concluded, either by retirement or leaving employment with a particular employer.

In conclusion, let me say that notification and preventive services for workers at high risk for occupational disease are greatly needed. The Federal Government needs to take a role in this area. And for this reason, we support the legislation before you.

However, it is critically important that attention, effort, and resources not be diverted from other established parts of the cycle of control of occupational disease.

Occupational health research could be very effective in the next few years, trained occupational health professionals could be very well utilized by our society, the right-to-know movement is definitely improving the amount and quality of information on chemicals available to workers in the community.

There is enough new knowledge to set effective standards and control known dangerous exposures, and testing of high use and other potentially dangerous industrial materials for hazardous chronic exposure is very definitely needed.

All of that has to be done. There has recently been a bit of a thaw in the frozen resistance of the chemical industry, in particular, to any and all public health interventions regarding toxic chemicals.

The UAW hopes this is a real change in position, however small, and not simply a shift in rhetoric, as these actors reel back from the pressure of public concern arising from the Bhopal disaster, toxic waste dumps, and the increasing evidence of widespread dangerous chemical exposures.

I must emphasize that while there has been a promise of movement, there has been no actual movement. UAW hopes that the new initiative regarding high-risk workers will proceed along with the restoration and expansion of efforts in other phases of the cycle of control.

Thank you.

[The prepared statement of Franklin E. Mirer follows:]

PREPARED STATEMENT OF FRANKLIN E. MIRER, PH.D., IN BEHALF OF INTERNATIONAL UNION, UAW

I am Dr. Franklin E. Mirer. I am an industrial hygienist and toxicologist, and director and the Health and Safety Department of the UAW. I am accompanied by Dr. Michael A. Silverstein, the UAW's occupational physician.

We testify today on behalf of the UAW, its over one million members and their families. We welcome the opportunity to convey to you our views on this subject of profound and growing importance, the problem of occupational disease caused by exposures to chemicals and physical stresses in the workplace.

My remarks today will place the issue of notification of workers at high risk within the total context of the occupational disease problem today. Dr. Silverstein will address the specific needs for an effective initiative in high risk notification and prevention.

The UAW supports legislation to provide notification and preventive services for workers at high risk to occupational disease because of the obvious right of these workers to know about their danger, the humanitarian need to provide preventive services, and the large public health improvements to be gained from such an intervention. The federal government is the most effective agent to launch and oversee such an effort, especially since the private sector has demonstrated a failure to carry out its responsibility.

There is a circle of public health activities needed to control occupational disease. This legislation is needed to close that circle. The sectors of the circle are:

1. Research so that we know how chemical exposures cause disease, what amounts of exposure pose a risk, and how to control exposures. Research is needed before testing can be designed.

2. Testing of all chemicals before they go into production and use, so their hazards can be known and protected against. This is a catch-up effort now, since most chemicals have gone into use before they were tested.

3. Control of exposures, through setting standards for protection and seeing that they are adhered to by industry.

4. Surveillance of workers exposed to chemicals, to quickly identify adverse effects which arise from exposures which are permitted by standards.

5. Information and training for workers and the public in the hazards of chemical exposures, to satisfy their right to know and to insure that recognized protective measures are applied. Education for the professional base of researchers, medical personnel, and those who implement controls is also needed.

6. Medical intervention for workers who have been affected by chemical exposures, either treatment for diseases or preventive procedures for those at higher risk for disease but who aren't ill.

7. Compensation for victims, so that those responsible for exposures pay the cost of disease and disability, rather than the victims alone or with assistance from social welfare programs.

Each part of this cycle, which includes both social and scientific developments, must be attended to if we are to have a cycle of progress. If not, we will simply have a circle of failure as we repeat our past mistakes and continue to create new victims.

The UAW believes that progress is being made on some of these fronts. There have been substantial gains in the 15 years since Congress passed the OSHA law and signified a new era in the American effort to prevent occupational disease and injury. There has been movement in the last five years, even in the face of the full-blown efforts of the Reagan Administration, its right wing allies, and certain parts of the corporate community to roll back hard won protections, dismantle or weaken the structures of NIOSH and OSHA, and block new public health interventions, such as state and local Right-to-Know laws.

The UAW has previously testified about successes in improving conditions in occupational safety and health. We have described an 80 percent reduction in injury rates in some employers since the OSHA law and major collecttive bargaining changes. We have described cooperative arrangements, such as joint safety committees, occupational health research programs, jointly designed and delivered health and safety training for all members in the plant, on company time.

These past successes give us optimism for the future, but there are two important negatives. First, the number of hazards yet to be addressed is large and growing--new data is accumulating at an increasing rate. Delayed or limited action means lives lost or shortened, and embittered by preventable occupational disease or injury. Second, the federal role has been key in the past to moving this effort forward. We can't go on forever in the face of Administration hostility: at some point the Administration's hostility and neglect will have caused irreversible damage to the enforcement agencies, education programs, and research institutions related to occupational health. It will then take years to rebuild these structures to be effective again. Those rebuilding years will also bring a cost of lives and health.

We have also told this subcommittee about documented, measured reductions in exposures to certain toxic chemicals. But these successes bring us to the problem of high risk notification and prevention. My purpose here is to give you evidence of the breadth of this problem by describing a series of situations in which we have evidence of large numbers of workers at increased risk.

Lead exposures have fallen dramatically since OSHA went into action, especially since the new lead standard went into effect. Previously, every battery plant had wholesale violations of OSHA's old lead standard; now some plants have virtually complied with the new, much stricter standard. But what about the battery workers whose measured body burden of lead places them at increased risk to kidney disease? There are few physicians, including company doctors in lead-using plants, who are trained to understand the effects of chronic lead exposure and therefore are qualified to treat workers for the current and future effects of past exposure.

Silica exposures in foundries have been controlled to a substantial extent since we got enforcement of a long-ignored standard for silica dust. Previously, every major foundry had exposures many times that allowed by the silica standard. The big plants were worse than the small ones. Now, the major plants have come close to compliance, although further work is still very much needed. In addition, the present OSHA silica standard may not be sufficiently protective. But what about workers with a long exposure history, who are at increased risk for respiratory disease and lung cancer? It's hard to find a physician who is trained to even read chest x-rays for evidence of dust disease.

The occupational cancer problem extends well beyond previous estimates. Recently completed studies have uncovered excesses of cancer among foundry workers, die cast and plating workers, workers in machining operations, in car assembly plants, in electronics production, among welders, and model and pattern makers. Other occupational groups are being found to be at excess risk. The specific chemical causes of these excess risks is not fully known.

Beyond these epidemiology reports, recent laboratory studies have demonstrated that many of the common materials of industry, produced in billion pound amounts and distributed throughout our society, have the potential to cause cancer and other profound effects on health. Indeed, for all the focus on cancer, the non-cancerous effects of these chemicals, such as kidney, liver, lung and nervous system diseases, may be more important to our society.

This problem is emerging now because of past grossly inadequate testing of the effects of these common materials. Information on these materials is now being released because of publically-funded studies, such as those of the National Toxicology Program, are considering these materials, and are doing studies by modern, effective methods which set a standard which all other investigations, including industry-funded investigations, must follow. In addition, the Toxic Substances Control Act requires that results of industry-sponsored studies be reported immediately. The pressure of TSCA, which gives EPA the right to require testing of chemicals, has also led industry to sponsor some studies.

Several years ago, tests conducted by the Chemical Industry Institute of Toxicology showed that formaldehyde, one of the top 10 chemicals manufactured in the world, causes cancer in rats and mice when inhaled. The levels of exposure which caused cancer were only a small factor above those permitted and present in America's workplaces. Workplace exposures are also at levels already well known to be likely to cause non-malignant respiratory effects.

As you know, the UAW and 14 other unions petitioned OSHA for a new standard on formaldehyde, and despite this evidence of grave danger, OSHA refused the UAW need, and the courts ruled that OSHA had erred in refusing to act and recently gave OSHA a deadline of October 1 to move on setting a new standard. OSHA has missed the deadline, so there is no legal requirement that any employer notify any current worker of the risks of formaldehyde exposure and no legally prescribed medical intervention for workers now exposed. Prevention for previously exposed workers now at high risk hasn't even been discussed by federal authorities.

Recently, the National Toxicology Program completed a study of the effects of inhalation of methylene chloride. This common solvent is found in many consumer products, and as a trace contaminant in foods, but the highest exposure levels and the longest exposure times are on the job. The NTP study found clear evidence that methylene chloride caused cancer in rats and mice, with increases in lung, breast, and liver tumors. More disturbing, liver and kidney disorders were found in these animals, even at the lowest level of exposure, which was only a few times greater than that now permitted by OSHA. Therefore, we don't know a safe exposure in animals, and can only guess what reduction in the permitted level of exposure is needed to give any assurance of safety to workers exposed to this chemical.

The UAW petitioned OSHA for a new standard on methylene chloride, as well as requested that OSHA notify workers and employers of this new evidence of hazards. Although the petition was received by OSHA in July, OSHA has done nothing at all, hasn't even given a reason for this inaction.

Recent laboratory tests of petroleum distillates, conducted by the American Petroleum Institute, and perchlorothylene (used in dry cleaning), conducted by the National Toxicology Program, demonstrate similar patterns of cancer and non-cancerous organ damage in animals at the lowest levels tested, levels of exposure actually permitted in American workplaces. No action has been taken by OSHA in response to this new, compelling evidence of risk of occupational disease to American workers.

In addition to these four agents which pose a carcinogenic risk, other priority chemicals include:

Isocyanates, which are used in foamed plastics, insulation and paints, and which cause a progressive lung disease (high levels, which causes immediate death, such as those achieved by methyl isocyanate in Bhopal, India, are less of a problem in the United States than lower chronic exposure);

Glycol Ethers, which are solvents found in many paints, inks, and cleaners, cause reproductive disorders in laboratory animals and nerve, bone marrow, and kidney damage;

Fluorocarbon Solvents, which cause irregular heartbeat which can lead to sudden death.

Other commonly used chemicals for which there is evidence of health risks at presently prevailing levels of exposure are: wood dust, aliphatic amines, trichloroethylene, methyl chloroform, cadmium, chromates, glycidyl ethers, and curing agents in epoxy resins, cutting fluids, and flame retardants.

CONCLUSION

Notification and preventive services for workers at risk for occupational disease are greatly needed. The federal government needs to take a role in this area. However, it is critically important that attention, effort and resources not be diverted from other established parts of the cycle of control of occupational disease.

Occupational health research could be very effective in the next few years; the federal in-house research effort has been severely reduced, and the support for outside research through NIOSH has decreased so badly that it is ineffective in building our knowledge base.

Trained occupational health professionals are potentially in demand and are in very short supply, because federal support for training at the graduate level has been sharply cut back and would be eliminated if the Administration had its way.

The Right-to-Know movement is definitely improving the amount and quality of information on chemicals available to workers and to the community; federal OSHA should take the lead rather than ally itself with the chemical industry in trying to head off this initiative.

There is enough new knowledge about the hazards of certain chemicals to set standards and control known dangerous exposures effectively; federal OSHA is resisting nearly every effort to set new standards, while enforcement of existing standards has been severely reduced.

Testing of high-use and other potentially dangerous industrial materials for hazards of chronic exposure has not been done; the authority of EPA to order testing by industry has not been exercised and must be activated.

There has recently been a bit of a thaw in the frozen resistance of the chemical industry an the Reagan Administration, to any and all public health interventions regarding toxic chemicals. The UAW hopes that this is a real change in position and not simply a shift in rhetoric as these actors reel back from the pressure of public concern arising from the Bhopal disaster, the toxic waste crisis, and the general understanding of the pervasiveness of potentially dangerous chemical exposures. Recently there has been a promise of movement, but no actual movement.

The UAW hopes that the new initiative regarding high risk workers will proceed along with a restoration and expansion of efforts in the other phases of the cycle of control.

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Mr. GAYDOS. Before we proceed, Mr. Murphy is here, he is the cochairman, and Mr. Bartlett. Gentlemen, any questions you may have at this time?

Mr. MURPHY. No, thank you.

Mr. GAYDOS. Before proceeding, how about Mr. Bartlett?

Mr. BARTLETT. No.

Mr. GAYDOS. Next, Doctor.

Dr. SILVERSTEIN. Mr. Chairman, committee members and staff, my name is Michael Silverstein, I am speaking here today on behalf of the United Automobile Workers, with whom I am employed as an occupational health physician.

I value the opportunity to testify on the important need to establish a program to identify and notify workers who are at high risk of occupational disease, and to provide services for the prevention and treatment of these problems and their ongoing effects.

Large numbers of workers spend their working days on jobs with involuntary exposure to chemical and physical hazards which jeopardize health and well-being.

Additional workers are at high risk resulting from past exposures, whose delayed health effects have not yet been felt or recognized. In many situations, these workers are known to be at increased risk because they and their coworkers have been the subjects of specific scientific studies.

Many more workers who have not been study subjects themselves face equivalently grave risks because they work in an environments similar to those which have been investigated.

In other cases, studies of animals exposed to certain chemicals have produced sufficiently strong proof of toxic effects for us to conclude that workers facing similar exposures are likely to be at substantial risk as well.

Mr. Mirer has stated our conviction that the Nation's most pressing occupational health need is for additional resources and commitment to reduce harmful workplace chemical exposures at their source.

H.R. 1309 addresses a complementary set of concerns focused on groups of workers from whom dangerous exposures have already occurred, and who are now or are presumed to be at risk of occupational illness.

These workers need to be identified first and notified of their status, and second, to be offered a full range of surveillance and support services; environmental protections to halt the continued accumulation of harmful exposures; medical surveillance for the early detection of health effects which can no longer be prevented, but for which prompt treatment may provide significant benefits; and long-term health care and other support services which can slow or soften the continuing impact of conditions which can no longer be prevented or reversed.

The need for individual worker notification is essentially an issue of civil rights in the workplace. It can be viewed as an extension of right-to-know principals embodied in OSHA's hazard communication standard.

The need for services, on the other hand, derives from the application of traditional and well-established public health principles to the modern workplace. These historic roots should have borne fruit years ago, without the need for extended public debate.

Yet, new legislation or regulatory activity is, in fact, necessary, because the public and private institutions charged with protecting civil rights and public health on the job have been unwilling or unable to respond to the needs of high-risk workers.

We believe that an acceptable program would have the following six elements: First, notification procedures. Three groups of workers should be notified. The first are those who are the subjects of epidemiologic studies with positive results, but who perhaps were unaffected at the time the investigation was conducted and are at high risk for the eventual development of disease.

This group, for example, includes survivor populations for mortality studies, which found high risk related to workplace exposures.

The second group are those who have not themselves been study subjects, but whose risk status can reasonably be presumed by the circumstances of their employment. For example, workers at sister plants of those specifically studied, or workers at plants where permissible exposure limits of OSHA-regulated chemicals have been exceeded.

The third group are those workers who are subjects in negative epidemiologic studies and thought not to be at high risk, but who should be afforded the right to know about their health status when information about them and of importance to them is in the hands of investigators.

The second element of an acceptable high-risk program would be services. Workers known or presumed to be at high risk of occupational illness need several levels of attention. For some groups, medical surveillance for the early detection of work-related disease will be a major concern.

Workers exposed to isocyanates, for example, should have periodic pulmonary function testing.

Additional support services are also necessary, both for workers with health programs detected during medical surveillance, and also for workers and their families who are without clinical illness but who are at high risk, nonetheless, and who are in an uneasy period of waiting and watching.

These services would include counseling and education, referrals for specialty evaluations, and social services, legal services.

It is also essential that high-risk workers be provided with information concerning hazard recognition and control, and that they be directed to organizations with expert skills in this area, so that appropriate attention can be devoted to the evaluation of current workplace conditions.

Clinical surveillance which is isolated from environmental assessment and control would lead to an irrational and inefficient expenditure of resources, insofar as efforts were aimed at the effects of hazardous exposures, while ignoring the exposures themselves.

The third element of a program would be the organization of high-risk services. Centers which provide services to high-risk workers should be required to demonstrate capability and experience in the following areas:

Diagnosis and treatment of occupational disease; family and social services; environmental assessment and control; and data management and epidemiologic——

Mr. GAYDOS. Doctor, let me interrupt you here. I know it is really irritating, and I apologize profusely that we are going to have to go over there, but there is a series of three votes, so I am assuming we would be 5, 10, or 15 minutes; that we should be back in 20 minutes.

I would like to recess at this time for 20 minutes, so that we can have the full attention of the members, because your testimony is essential and is very good, as I discern it today.

Mr. CHANDLER. Mr. Chairman, I have to leave to attend a markup in the Banking Committee, which begins at 11. I apologize to the panel.

If I could, I would like to take the testimony that we do have now and submit to those witnesses written questions to which we would like some very specific answers because these statements tend to be somewhat general, and those then could be submitted in the record of the testimony.

Mr. GAYDOS. All right, then because of the inability to stay, and also because of the lateness of the submitted written testimony, then we will have that commitment from the panel that interrogatories as submitted will be responded to.

I want to thank you very much. Let us recess, and we will be back in 20 minutes. And I would like to encourage all the members, please come back, because the testimony given here is very crucial on the ultimate passage or nonpassage of this legislation.

We will recess for 20 minutes.

[Recess.]

Mr. GAYDOS. The committee will come to order, and Doctor, I apologize again on behalf of the committee for interrupting your excellent testimony, so if you will want to go ahead, do you want to sum it up, a summation, or want to go into detail? It is up to you.

Dr. SILVERSTEIN. Thank you, Mr. Chairman.

I have had considerable experience with beepers and page systems. The only thing that is disconcerting about them is I always think that I have to get up and go someplace.

I was indicating what the elements of what we believe to be an acceptable program for high-risk workers are, and I would like to continue with that listing in brief form.

The third element would be an effective system for the organization of high-risk services. Centers which provide services really need to demonstrate the capability and experience that they have in several distinct areas.

These would include diagnosis and treatment, family and social services. In addition, there is a necessity, and this is a particularly important element for centers participating in programs of this nature, to have capacity in environmental assessment and control, as well as data management and epidemiologic evaluation.

Stringent procedures need to be established, either certify or license centers as eligible to receive referrals under a high-risk program, and to monitor the quality of those services.

The fourth element of a program would be employer responsibilities. Employers of workers determined at high risk should be required to assume major responsibilities during the implementation of high-risk programs.

The employer role really would have several elements, including informing employees who are members of high-risk populations of their status, and of their rights to medical and other services.

Employers, of course, should also be required to except certain financial responsibilities for the provision of diagnostic and treatment services related to high risk.

The fifth element of a program would involve the determination of high-risk status. There needs to be at a national level a risk termination procedure, with probably a panel that would be available to assist the responsible agencies in the identification of high-risk groups who are eligible for services, and to determine the type and frequency of surveillance services for each group identified.

That panel should render judgments based on the best available scientific evidence, and to the extent that such a panel or the agencies would utilize quantitative decision rules to determine that a specific group of workers would be ineligible for services, those types of rules should be understood to have established a presumptive judgment of risk and a judgment that would be subject to rebuttal by panel deliberations.

The sixth element of a program would involve funding. High-risk legislation must include adequate appropriations so that new responsibilities can, in fact, be met by agencies such as NIOSH which do not currently have funds available for such purposes.

An unfunded program would generate expectations and frustrations which would defeat the purpose of the whole endeavor.

H.R. 1309, in its current form, does not embody all the program features just described, but it should prove readily amenable to strengthening in these regards. I would like to call the committee's attention to a proposed bill on employee medical testing currently before the California State Assembly and Senate.

That bill does not meet all of our criteria either, but it does provide several features which could strengthen H.R. 1309, and which are worth the subcommittees' consideration. I will not go through the list of the items in the California proposal right now, but they are included in the written testimony.

In closing, I would like to take a moment to comment on experience I have had recently as a consultant to a subcommittee of NIOSH's Board of Scientific Counselors, which was established to review criteria that NIOSH has proposed to use in identifying high-risk worker populations for possible individual notification.

During our deliberations, we were informed by NIOSH staff that the agency has made a decision to go ahead with individual notification of workers, workers whose names are known to NIOSH as members of a small group of study cohorts, which meet high-risk criteria.

With respect to the NIOSH initiative, I think it is important to recognize, first of all, that NIOSH has no funds available for such a high risk program unless it cannibalizes other programs of the Institute that you are already short on resources.

And second, while NIOSH has a reasonably strong record as a research institute, it simply does not have experience or an organizational apparatus to ensure the medical surveillance and nonclinical support services which are necessary to make a notification process a productive exercise.

Given those kinds of constraints, NIOSH's initiative might best be viewed as an expression of interest and willingness on the part of an agency without adequate resources to carry out a constantly enlarging social mandate.

If H.R. 1309 is abandoned, NIOSH is in no position, despite any intentions on the part of key administrators, to pick up the slack with more than a minimal notification programs for some of the 86 worker groups which had been the subjects of NIOSH mortality studies.

On the other hand, if the subcommittee strengthens H.R. 1309, and moves it through Congress with suitable appropriations, it is likely to be implemented by an enthusiastic and cooperative agency.

Without a new congressional initiative of this type, the Institute and worker notification programs will simply be handcuffed.

Thank you very much.

[The prepared statement of Dr. Michael A. Silverstein follows:]

PREPARED STATEMENT OF MICHAEL A. SILVERSTEIN, M.D., M.P.H., INTERNATIONAL UNION, UNITED AUTOMOBILE, AEROSPACE AND AGRICULTURAL IMPLEMENT WORKERS OF AMERICA [UAW]

My name is Dr. Michael Silverstein. I am testifying here today on behalf of the International Union, United Automobile Workers (UAW) with whom I am employed as an Occupational Health Physician. I received my medical degree from Stanford Medical School, a masters degree in public health from the University of Michigan and am certified by the American Board of Preventive Medicine as a specialist in Occupational Medicine.

I value the opportunity to testify on the important need to establish a program to identify and notify workers who are at high risk of occupational disease and to provide services for the prevention and treatment of these problems and their ongoing effects.

Large numbers of workers in this country spend their working days on jobs with involuntary exposure to chemical and physical hazards which jeopardize health and well being. Additional workers are at high risk resulting from past exposures whose delayed health effects have not yet been felt or recognized. In many situations, these workers are known to be at increased risk because they and their co-workers have been the subjects of specific scientific studies. Many more workers who have not been study subjects themselves face equivalently grave risks because they work in environments similar to those which have been investigated. In other cases, studies of animals exposed to certain chemicals have produced sufficiently strong proof of toxic effects for us to conclude that workers facing similar exposures are likely to be at substantial risk as well.

Dr. Franklin Mirer, director of the UAW Health and Safety Department, has presented additional testimony documenting the magnitude of these problems drawn from our unique experiences with the members and retirees of one of the country's largest industrial unions as well as from our reading of the scientific literature. He has stated our conviction that the nation's most pressing occupational health need is for additional resources and commitment to reduce harmful workplace chemical exposures at their source.

H.R. 1309 addresses a complementary set of concerns focused on groups of workers for whom dangerous exposures have already occurred and who are known or presumed to be at risk of occupational illness. These workers need, firstly, to be identified and notified of their status and, secondly, to be offered a full range of surveillance and support services:

- environmental protections to halt the continued accumulation of harmful exposures;
- medical surveillance for the early detection of health effects which can no longer be prevented but for which prompt treatment may provide significant benefits;
- long-term health care and other support services which can slow or soften the continuing impact of conditions which can no longer be prevented or reversed.

The need for individual worker notification is essentially an issue of civil rights in the workplace, an extension of Right to Know principles embodied in OSHA's Hazard Communication Standard. The need for services, on the other hand, derives from the application of traditional and well-established public health principles to the modern workplace. These historic roots should have borne fruit years ago without the need for extended public debate. Yet, new legislation or regulatory activity is imperative because the public and private institutions charged with protecting civil rights and public health on the job have been unwilling or unable to respond to the needs of high risk workers.

We believe that an acceptable program would have the following six elements:

1. NOTIFICATION PROCEDURES: Three groups of workers should be covered.

   First, are those who were the subjects of epidemiologic studies with positive results but who were unaffected at the time the investigation was conducted and are at high risk for the eventual development of disease. This group would include survivor populations from mortality studies which found high risks related to workplace exposures.

   Second, are those who have not themselves been study subjects, but whose risk status can reasonably be presumed by the circumstances of their employment; for example, workers at sister plants of those specifically studied and workers at plants where permissible exposure limits to OSHA regulated chemicals have been exceeded, particularly where personal samples have been recorded.

   Third, are workers who were subjects in negative epidemiologic studies who are not thought to be at high risk, but who should be afforded the right to know about health status information about them and of importance to them which is in the hands of the investigators.

   Government agencies, particularly OSHA and NIOSH, which have information about all three types of worker populations should be understood to have special public health notification obligations, but employers and independently based scientific investigators who have similar information about workers should also be held responsible for the appropriate use of this data.

2. HIGH RISK SERVICES: Workers known or presumed to be at high risk of occupational illness need several levels of attention.

- For some groups, medical surveillance for the early detection of work related disease will be a major concern. Workers exposed to isocyantes, for example, should have periodic pulmonary function testing. Workers included in studies showing excess numbers of bladder cancer deaths should have periodic urine cytologic examinations, even if the specific etiologic agents have not been identified.

- Additional support services are also necessary, both for workers with health problems detected during medical surveillance and also for workers and their families who are without clinical illness but are at high risk and in an uneasy period of waiting and watching. These services include counseling and education; referrals for specialty evaluations; social services; legal advice.

- Finally, it is essential that high risk workers be provided with information concerning hazard recognition and control and that they be directed to organizations with expert skills in this area so that appropriate attention can be devoted to the evaluation of current workplace conditions. Clinical surveillance which is isolated from environmental assessment and control would lead to an irrational and inefficient expenditure of resources insofor as efforts were aimed at the effects of hazardous exposures while ignoring the exposures themselves.

3. ORGANIZATION OF HIGH RISK SERVICES: Centers which provide services to high risk workers should be required to demonstrate capability and experience in the following areas — diagnosis and treatment of occupational disease; family and social services; environmental assessment and control; and data management and epidemiologic evaluation. Stringent procedures should be established to certify or license centers as eligible to receive referrals under a high risk program and to monitor the quality of their services. Special incentives should be created to encourage the development of centers which combine the resources of management, labor, and health professional institutions.

4. EMPLOYER RESPONSIBILITIES: Employers of workers determined to be at high risk (or former employers if the risk derives from past exposures) should be required to assume

major responsibilities during the implementation of high risk programs. The employer role should include informing employees who are members of high risk populations of their status and rights to medical and other services; establishing referral relationships with centers certified to provide high risk services; cooperating with these certified centers in the evaluation of workplaces for current hazards and in the development of abatement plans; and accepting financial responsibility for the provision of diagnostic and treatment services related to high risk.

5. DETERMINATION OF HIGH RISK STATUS: A national high risk determination panel should be established to assist NIOSH in the identification of high risk groups eligible for services and the specification of the type and frequency of surveillance services for each group. This panel should include the best qualified scientific and medical experts. The selection and operation of this panel should strictly eliminate conflicts of interest. The panel should render judgments based upon the best available scientific evidence. To the extent that this panel and NIOSH utilize quantitative decision rules to determine that a specified group of workers is ineligible for services, these rules should be understood to have established a presumptive judgment of risk which is subject to rebuttal by panel deliberations.

6. FUNDING: High risk legislation must include adequate appropriations so that new responsibilities can in fact be met by agencies, such as NIOSH, which do not currently have discretionary funds available for such purposes. An unfunded program would generate expectations and frustrations which would defeat the purpose of effective and orderly workplace change.

H.R. 1309 in its current form does not embody all the program features just described, but it should prove readily amenable to amendment in this regard. We would like to call the subcommittee's attention to a proposed bill on Employee Medical Testing which is currently before the California State Assembly and Senate. The Assembly version (AB 990, introduced by Assemblyman McAlister on February 26, 1985) was unanimously passed by the Assembly and was reported out of the Senate Industrial Relations Committee without opposition. This bill does not meet all the UAW's criteria, but it does provide several features which would strengthen H.R. 1309 and which are worth this subcommittee's consideration. Specifically, the California proposal would do the following:

- require employers to inform employees who are members of populations at high risk of their status
- require employers to offer high risk employees an opportunity to undergo the specified medical surveillance
- require that medical testing for high risk employees be provided at the expense of the employer
- require the State Department of Health Services to prepare and distribute informational materials
- require that each designation of a high risk population be accompanied by a determination of the type and frequency of medical surveillance services which are appropriate and effective

- require employers to designate health care providers in their vicinity which meet qualifications established by the State Department of Health Services
- require that these providers retain medical records so that they will be available for epidemiologic and follow-up studies and that procedures be established so that such studies can be accomplished without affecting the confidentiality of these medical records
- establish an advisory committee with labor, management and academic representation
- provide funding for the development of the preliminary list of high risk populations

Before closing, I would like to express conclusions I have reached as a result of recent experience as a consultant to a subcommittee of NIOSH's Board of Scientific Counselors which was established to review criteria NIOSH has proposed to use in identifying high risk worker populations for possible individual notification. During our deliberations, we were informed by NIOSH staff that the agency has made the decision to go ahead with individual notification of workers whose names are known to NIOSH as members of study cohorts which meet high risk criteria which are still under review.

First, NIOSH has no funds available for a high risk program unless it cannibalizes other programs of the Institute which are already short on resources.

Second, NIOSH has a strong record as a research institute. It does not have experience or an organizational apparatus to conduct or otherwise ensure the medical surveillance and non-clinical support services necessary to make the notification process a productive exercise.

Given these constraints, NIOSH's initiative might best be viewed as an expression of interest and willingness on the part of an agency without adequate resources to carry out a constantly enlarging social mandate. If H.R. 1309 is discarded, NIOSH is in no position, despite any intentions on the part of its key administrators, to pick up the slack with more than a minimal notification program for some of the 86 worker groups which have been the subjects of NIOSH mortality studies. On the other hand, if the subcommittee strengthens H.R. 1309 and moves it through Congress with suitable appropriations, it is likely to be implemented by an enthusiastic and cooperative agency. Without a new congressional initiative of this type, the Institute will be handcuffed.

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Mr. GAYDOS. Thank you very much, doctor.

Dr. Miller.

Dr. MILLER. Good morning.

Mr. GAYDOS. Any questions?

No questions. Go ahead.

Dr. MILLER. I am Dr. Kenneth Miller, and I am an occupational health physician for the Oil, Chemical and Atomic Workers International Union.

Mr. Chairman, it is with deep interest and concern that I appear before you and the other members of the subcommittee in support of H.R. 1309, otherwise known as the High Risk Occupational Disease Notification and Prevention Act of 1985.

I am here today to speak on behalf of OCAW, whose 115,000 members nationwide work in some of the most toxic and hazardous industries in this country. Our members are exposed to serious hazards in oil refineries, petrochemical plants, plastics manufacture, pharmaceutical plants, and in the atomic sector, in uranium mining and milling, nuclear fuel enrichment, reprocessing, and nuclear weapons production.

As a special in occupational medicine and in my role as a physician for such a large and diverse group of employees, I can state that I am well aware of the problems faced by our members who are placed in work environments, which, in some cases, vastly increase their risk for an occupationally induced disease.

Whether it is an outbreak of brain cancers in the petrochemical plants, or bladder cancers in the dye-exposed workers, or lung disease and multiple cancers in the asbestos exposed maintenance workers, all of which we have experienced, in fact, our position has always been guided by two basic principles, which I would like to summarize for you.

Principle No. 1 is that exposed individuals have this basic and inherent right to be informed of their exposures, and the related illnesses which may result from these exposures. We also recognize that more indepth educational programs concerning risk reduction are crucial to the protection of health of individuals who are placed at such increased risk due to workplace exposures.

Principle No. 2 states that principle one is not sufficient to adequately prevent the devastating consequences that often accompany these serious illnesses. Notification and education alone, in the absence of an active, proactive, medical surveillance and early diagnosis and treatment program are simply insufficient to prevent premature death and/or disability from these diseases.

I am here today to support H.R. 1309 because it is, in my view, a very practical and efficient approach to a very complex problem which heretofore, I am confident in stating, has been inadequately addressed.

This bill, if enacted, would take some critical first strides in solving what has become a very serious problem for government, industry, and labor. However, I think it is really important to remember that in the end, it is the individual working person who alone bears the cost of an occupational disease, in most cases without any assistance or compensation, in fact.

Let me digress here and call your attention to a Department of Labor study that pointed out in 1980 that only 5 percent of people who have occupational diseases actually receive any compensation from the worker's compensation system, and though that is not the focus of this, but I want to point out as a physician that I have come across many, many patients, workers who have these illnesses, who receive no assistance in getting medical exams, and in the end, no compensation.

This bill would greatly assist such individuals, and their physicians, in recognizing the risks to their health and would, hopefully, serve to prevent some of these devastating complications.

Before I specifically pinpoint a couple of measures that are contained in H.R. 1309, I think it would be useful for me to expand upon my longstanding involvement with and commitment to the whole concept of notification as is embodied in this bill.

Perhaps it is enough to say that I am not a truly objective observer in this matter in that I have spent the last 4 years of my life deeply involved in implementing model notification projects throughout the United States.

In late 1981, as Medical Director of the Workers' Institute for Safety and Health, it became my responsibility to help design and implement medical protocols for the early detection of cancer in three different working populations who were found to be at high risk for certain forms of cancer.

This work, which was supported by a grant from the National Cancer Institute, was designed to demonstrate that notification of risk and medical intervention programs could take place and be effective in a variety of settings, and be successfully administered through a number of different approaches.

These notification and intervention programs can briefly—and I say briefly since it took about 2 or 3 years to get these programs rolling—can be summarized as follows:

We have heard mention of Augusta, GA, in which a group of some 500 dye workers who were previously in the past exposed to a known bladder carcinogen, beta naphthylamine, were traced and notified of their risk status.

They were offered free screening medical exams at the Medical College of Georgia, through the Department of Family Practice.

The screening was paid for by NIOSH, through a subcontract to the medical college, and was jointly administered by an advisory group consisting of NIOSH officials, Medical College of Georgia program staff, and Workers' Institute for Safety and Health staff on behalf of the employees. Company officials refused to participate directly in the program.

Model No. 2, in Port Allegheny, PA, a group of some 800 current and former employees had longstanding and serious asbestos exposures dating back to the 1940's.

In this model, the company involved paid the Mt. Sinai School of Medicine Environmental Sciences Laboratory, under the direction of noted asbestos researcher, Dr. Selikoff, to conduct an ongoing screening for asbestos-related disease.

I should digress a moment here and point out that while the company did pay for the program, that was negotiated through a collective-bargaining agreement between the union and the company.

The program was then administered by an advisory board similar to the model No. 1, consisting of company—in this case—company and union representatives, as well as prominent community members, members of the clergy, the local hospital administrator, and some local physicians.

Inasmuch as the problem seemed as an important issue to this largely rural community, the program was designed to be highly responsive to the needs of affected employees, and to rely heavily on the resources of the community, particularly in the utilization of existing local health care providers, that is, local physicians, local hospitals, who are trained specifically by the program in the diagnosis and management of asbestos-related disease.

Let me again digress and say that that was important because most physicians, regardless of their speciality, know really nothing or very little about occupational diseases, the training in medical schools being the main source of that deficiency.

Model three: In this model, a nationwide program affecting some 8,000 skilled machinists known as pattern makers, work largely in the automobile and agricultural implements industries, are found to have significant excesses of colorectal cancers.

On behalf of the union, we designed and implemented a notification and screening program which was paid for through, again, collective-bargaining agreements between labor and management.

The program was then implemented in 21 States and in 107 different locations, using local health care providers, and the data was collected and analyzed through a joint effort involving the National Cancer Institute and the Workers' Institute for Safety and Health.

I have digressed somewhat to present these models to you for your consideration, because I believe that as demonstration projects, they were extraordinarily useful to me in helping me formulate my ideas as to the importance, as well as the feasibility, of performing larger scale notification projects.

In fact, this model of notification and screening has now been successfully employed within our union in a number of different situations, one of which I cited here through a collective bargaining agreement, again with an employer whose plant had already closed.

The company agreed through a severance agreement to support a bladder cancer screening program in Lock Haven, PA, using again, a local physician who will continue in perpetuity as long as the company continues to fund the program, to notify and screen all former employees.

I believe these projects were critical as well to demonstrate to NIOSH, who, in each of the three cases, had performed prior research which identified these groups as being at high risk for occupational cancers, that such projects were quite feasible through a variety of approaches.

This is important, because it is common knowledge that NIOSH is in possession of similar information pertaining to the high-risk status of literally hundreds of thousands of occupationally exposed individuals who have not been notified of their risk status and thus, cannot act to protect themselves.

Some people in NIOSH obviously feel that there is an ethical imperative to inform workers who are found to be at high risk, and NIOSH is not the only Federal agency which is in possession of excessive risk findings for occupational disease among employees, for recent information has indicated that some Department of Energy employees at numerous nuclear installations throughout the Nation are at high risk for cancers and other diseases as a result of their radiation exposures.

To my knowledge, no notification of these employees, some 10,000 of which are our members, has yet to take place.

Thus, it is clear to me from my experience, that if we accept the proposition that occupationally exposed workers have a right to know their risk status, and that with that knowledge, they are then given the opportunity to do what they can to prevent death and disability, legislation which will enable working people to help themselves is a critical need.

H.R. 1309 is, in my view, a well thought-out measure which deals with the clinical and workplace realities which it must address to be successful in the world.

My support of 1309 is particularly related to the following provisions:

One, the establishment of a nationwide system to first identify, and then notify these affected individuals, expanded research efforts and the establishment of a risk assessment board as proposed in the measure will service to greatly expedite the identification of groups at high risk, as well as establish criterion parameters to define such risks.

This will help to arbitrate the question of who is at risk, and thus, quicken the pace of intervention by the medical community, which is sometimes paralyzed by the continual debate as to whether or not a risk even exists.

Two, the support of a nationwide research network in the vital areas of improved diagnostic and surveillance methods, as well as new treatment and modalities. I think this point is obvious. We need more research into early screening methods and treatment methods once we find that people have disease.

Three, the establishment of centers of excellence in the area of occupational medicine to help both affected workers and, in fact, their physicians cope with these difficult problems.

These centers are, I think, important additions to the existing health care system. For physicians, as I said, as well as workers.

And point four, to me, a very important point, the inclusion of the cost of medical surveillance examinations as a covered item in any health care financing system.

To me, it remains a most disturbing and extraordinarily confining anomaly of our health care system that although much is heard about the health and economic benefits of early diagnosis, most private insurance carriers do not reimburse patients for routine preventive health care, including screening for cancer and other serious chronic diseases.

As a practicing occupational medicine physician, my desire to appropriately provide screening services for exposed workers was severely hampered by this nonreimbursable expense that most working people are unable to afford by themselves.

In closing, let me echo once again what has been said before to this committee by Dr. Irving Selikoff, who, in addition to being my mentor and with whom I was fortunate enough to have trained, is a noted clinician and researcher in the field of occupational and environmental medicine.

This bill is, in his words, and I quote, "exactly what scientists have been looking for." This is true, because H.R. 1309, first and foremost, is a public health measure.

The multiplier effect that this bill would have, in terms of increasing the awareness of occupational disease among workers, their physicians, and all those who would be involved in the spinoff research projects which would develop from such notification programs, should not be overlooked.

Moreover, the validation of new screening techniques among people at high risk for occupational disease may then be generalized, or be able to be generalized for use among the general population in finding illness in people even at lower risk than the occupationally exposed populations.

The working people of this country, for many years, have borne the disease burden of toxic workplace exposures so that our society could harvest the benefits of an improved standard of living.

Among our members, you will find people working to produce gasoline for our cars, plastics for our homes and industries, and pharmaceuticals to help heal our illnesses. The fruits of their labors have been ripened and been eaten by all of us, and if, during the course of their working lives, through no fault of their own, they have been exposed to toxic substances and are placed at a high risk for serious and often fatal diseases, who among us is willing to deny them the knowledge that might be used to save their lives?

Much of the damage has already been done. The seeds of exposure for many have already been sewn. The more than 100,000 work-related deaths annually, which I remind you is almost twice the number of total deaths in Vietnam, and the scores of others who are disabled are grim testimony of past mistakes.

We must act now to identify, notify and screen those whose well-being hangs in the balance, for to do otherwise would allow the concept of "ignorance as bliss" to triumph.

I sincerely urge your support of H.R. 1309 as a giant step in the conquest of such a concept. In so doing, you will enable the working people of this country to live their lives without the fear that the fruits of their labors may have been needlessly stolen by a premature and preventable death from a cause which they knew nothing about.

Thank you very much.

Mr. **Gaydos**. Thank you, doctor.

Director Seminario.

Ms. **Seminario**. My name is Margaret Seminario, I am associate director for occupational safety and health for the AFL-CIO. Chairman Gaydos and members of the committee and staff, I do appreciate the opportunity to testify on H.R. 1309.

I would just like to take a few minutes to summarize some of the major points in my testimony, and that is to address some of the arguments of those who have opposed the bill. I think most of the people who have appeared before you have made some public statement about the bill. All agree in concept that notification of workers at high risk is something we can all support.

When we get down to the nuts and bolts as to how we do it, and whether or not Federal intervention is required, there there are some distinct differences of opinion. But there have been certain points raised by those who oppose the bill who have claimed that certain Federal agencies, programs and regulations provide all the intervention and notification that is needed.

And the AFL-CIO does not agree with this.

There are really three agencies that have the authority and responsibility to deal with occupational safety and health and toxic substance-related issues: They are the National Institute for Occupational Safety and Health, OSHA, as well as EPA.

And when you look at the statutes, the regulations and programs of these three agencies, what you find is that there is, in fact, no system, no requirements, no program in place that actually does require the notification of workers at a high risk, the intervention, followup and medical treatment of these individuals.

First, starting with NIOSH and their programs. Indeed, they conduct studies, as we all know, and they have conducted a great number of studies on worker populations where they have found an excess risk of disease and increased early mortality in workers.

NIOSH practice to date is to notify the company where the study has been. If the union exists, they notify them of the results, but the individual workers who were the subject of that study, who NIOSH has names, addresses, other information, for those workers who are still alive, NIOSH does conduct no followup notification of those individuals, and it is left to either the employer or the union to provide the basic information to the employees or to the union members about the findings of the study.

But there is no followup. They study populations are a distinct cohort defined group, but there are other steelworkers than those who may have been studied. There are other dye workers who may have bladder cancer who have the same risks, the same exposure, but just because they were not the subject of this study, they aren't even informed that a study was conducted and that they as a population may be at some increased risk.

So currently, there are no programs at NIOSH, no system to follow up from their studies to notify the subjects of the studies they have conducted, or to extend that notification to other groups.

Turning to OSHA, OSHA does have the primary responsibility to regulate exposures in the workplace, and when you look at the OSHA Act, a section of that act spells out specifically what those standards must contain.

One of the provisions is provisions for medical surveillance. There are 22 OSHA health standards that have been issued to date, and one standard that requires some medical surveillance on noise exposure.

If you look at how the standards are formulated, they only require medical surveillance for currently exposed workers. So if you have workers in that workplace who were formerly exposed before the exposures were lowered as a result of the standard, who are perhaps at the highest risk, but those no workers are no longer exposed, they don't get the medical test.

Also, a worker who moves into another job or retires no longer, under the law, must be given any kind of medical examinations. And so, it may be those very workers who are at the highest risk that, under the scheme of things, aren't picked up and included.

Now, we have urged OSHA to change the provisions in their standards for medical exams, so the surveillance provisions really get at the people who are at highest risk. And unfortunately, OSHA has not done so, and in every case where we have urged that the medical examination provisions be changed, the industry has opposed the concept.

In some cases, they claim that it is not feasible to find these people who have left employment, and when we have raised, what about the people who still work there, still your own employees, whom you know are exposed, what about notifying them and what about providing medical surveillance?

And again, that has not been met with a positive response. Even a minimal requirement that we have proposed, that when a worker leaves a place of employment that they be provided medical records as well as guidance as to what kind of medical surveillance they should undergo in the future, so when they move to future employment or medical care, that they have some document they can give to a physician to say, "Here is my history. Here is the basic requirements for medical surveillance," and seek that surveillance even at their own cost, the companies have said no.

And why they said no is because they are very concerned about two issues: One is possible compensation claims, and the other is product liability.

And that is really what the opposition to this bill is all about, because the bill, if implemented, would finally notify those workers who may be at risk, and when they develop the disease, hopefully those workers would seek the compensation that they are entitled to under law, and the burden and cost of disease would be shipped from those workers onto the employers and manufacturers who really should be bearing that cost.

And that is what the opposition is all about.

Mr. GAYDOS. Could I stop you right there, Peggy? The question is, how should we attack it?

Is there anyway to attack it as far as our approach? We are talking about the occupational disease cases, and you are surmising and suggesting that the opposition is strongly connected with the occupational disease acts and ultimate compensation being paid, which I have to presume would be assumed—or rather, would be interpreted as being prematurely paid.

Because if you didn't discover the difficulty, that employee may be working for another 6 or 8 or 10 years and by that time, maybe your company is bankrupt. What other things could occur in the meantime?

Now, on that very sensitive point that you raised, that that is where a lot of the opposition is centered around, that early disclosure and the fear that it may take on another nomenclature, another case, do you have any suggestions, in your official capacity, as to how we can answer that fear, and maybe hopefully would convert some of those individuals to supporting the bill, as distinguished from fighting it?

Ms. **Seminario**. Well, I think that to the extent that this bill may result in more compensation claims and more suits against product manufacturers, the fear may be real, and I think, you know, the bottom line is that what we need to establish in this country is a system for the compensation of individuals who suffer from occupational diseases.

There is legislation that has been introduced by other—that is under consideration by another subcommittee of the full committee, and I think hearings on the Williams bill will be heard tomorrow.

I think that is a place to start, because until there is actually a system which equitably provides for compensation to individuals, as well as the payment by those employers who have been involved in exposing individuals and contributing to the risk, and there is some equitable solution in place in the compensation scheme, that you are going to have this continued opposition.

Mr. **Gaydos**. Probably what I was trying to lead you into, and I am going to say it, let me postulate then, what I think one of the answers might be.

If you discover disease earlier than letting it run its course of another 10 or 15 years, you are a lot better off financially getting it early; isn't that true, Doctor?

Dr. **Miller**. Yes——

Mr. **Gaydos**. They jump to you——

Dr. **Miller**. May I respond also to your original question.

Mr. **Gaydos**. There is going to be big area of conflict on the floor of the House if this measure gets there, and we have to be in a position to answer it to the critics, so that—go ahead.

Dr. **Miller**. I would like to give you one weapon, which is, take the case of President Reagan's colon cancer.

Mr. **Gaydos**. Yes.

Dr. **Miller**. OK? Well, if it had been caught when it was a polyp—

Mr. **Gaydos**. That was an occupational—go ahead.

Dr. **Miller**. Who knows? But——

Mr. **Gaydos**. I don't want to make a joke out of a very bad situation.

Dr. **Miller**. Well, you know, but one of the projects that I referred to was a colon cancer screening project, and what we did was while screening people, was we removed through the screening, those polyps which had they been left would turn into cancer.

Now, the screening cost may be $100, including the removal of the polyp, per person. That cancer, had it been developed and the person had to be hospitalized, operated on, not to mention the negative effects on the person's health, the cost would have been probably $10,000, probably tenfold, to treat a cancer rather than prevent it. And that is true for certain other diseases as well.

So, if we believe everything that the American Cancer Society and everybody else is saying, that an early diagnosis provides both health and economic benefits, this program would go a long way to, in some sense, prevent diseases from either developing, therefore, no worker's compensation claims.

And so, I think that is one point, and the point you raised is also very well taken.

Mr. **Gaydos**. Jack.

Mr. **Samuels**. Just a fast additional comment. I agree with Peggy has said and what Ken has said, Ken particularly has made some important points about catching disease early and early detection.

But the nub of your bill, Congressman, would even catch the disease or the seeds of the disease before it actually becomes clinically manifest. That is to say, we increasingly are able to prevent the diseases from developing in the first place, and that would reduce the claims, that would reduce the fear of product liability if we can institute in this country a program of health promotion, and those two terms are used in the Franklin Delano Roosevelt report, by the way, if we can institute a specialized program of health promotions for workers at high risk, not all, maybe not even most, but many workers will never develop the disease to begin with.

That is what we are trying to do and that is why we need this companion bill.

Mr. **Gaydos**. Excuse me, Doctor, we will get to you.

As a practical problem, as I see it, I could be 100 percent wrong, but I don't think that those that are going to be opponents of this bill, whoever they are, there are going to be some, I don't think that they dispute the principle that we should be doing more in this area, notification should go out, there are people handling very dangerous substances, and something should be done about it. We shouldn't be living in the dark ages that we have in the last 200 years.

And further, one part of our economy, our standard of living, on another person or family's misery, that is what we are talking about generally.

I think a large part of their problem, and it is understandable, is going to involve costs, and we are going to have to address that problem, because, you know, business has been thrust into a dog-eat-dog competitive situation today, and many, many things, whether we like it or not, involve cost.

I think we have to be prepared in all areas, in order to foster and promote our legislation, to be able to handle all of these critics at the right time with reasonable responses and telling argumentation on the floor of the House and other places. This has to be. We have got to be that practical. That has to be a primary concern, as I see it, the edge of it.

Mr. **Sheehan**. Yes. Congressman Gaydos, to get back to the point you were making originally, however, not so much the cost of a notification program, but whether a notification program did indeed induce liability on the part of the employer for workmen's compensation claims.

I would like to make two comments with regard to that.

One, as indicated in many of the testimonies by employer groups, they indicated that this legislation wasn't needed because it is duplicative. They are already doing the notification.

It might be worthwhile to inquire from those—for instance, I have before me the testimony from the Chemical Manufacturers Association, to inquire from them their experience, where they have indeed notified their employees as to whether there was any increased exposure for liability under workmen's compensation laws.

If they are already doing it, I think this argument that it would increase legal liability could be at least tested in those areas where—have said that it is going on. I think it is an argument that you would have to be able to have—to pursue on the floor, but we have the ability to get concrete information as to whether there is that legal exposure.

No. 2, I think at stake here, Congressman, is that we are talking about information, and the bill itself specifically, in a section in there, says that it is not intended to increase legal liability.

If there is any hesitancy as to whether disclosure of information increases legal liability, perhaps you could work a little bit more on that section of the bill, but let's be very clear that legal liability is a court issue, there is a lot of restraints before you lay down liability on somebody, and just merely disclosing information is not a precursor that you are liable.

As a matter of fact, if you are notifying people, the chances are that you are trying to indicate that you have taken all reasonable actions to preclude final liability.

I think the other argument, however, is that in the final analysis, if information will prevent the eventual injury for which you are seeking compensation, what better way to avoid the legal costs of compensation if you avoid the injury in the first place that this bill might provide.

Mr. GAYDOS. Now we will get back to Ms. Seminario, after we so rudely interrupted your train of thought and your presentation.

Ms. SEMINARIO. It was a good exchange here.

Just two final points that I would like to address, and that is, first of all, the requirements of OSHA hazard communications standard, because it has been stated by some that all the employee notification that needs to take place will take place as a result of that standard.

I just want to make the point that it won't. First of all, the standard right now is limited to the manufacturing sector, and hopefully, as a result of a successful legal challenge by the United Steel Workers, and other labor unions, that the standard will be extended to apply to all workers.

Even then, it won't provide the kind of notification we are talking about, because the only real information and training that is required under the standard is a basically one-time, one-shot deal of notification of—not even notification, it is training of workers about the requirements of the standard, about the employer's program.

The only information on chemicals is basically their physical and health hazards. The whole concept of risk, exposure levels, is nowhere covered by this bill, and so, employees hopefully will be provided some basic information about chemicals, but they will not be provided basic information about their own personal risk or the population, as the risk that they face in the workplace.

Again, I would like to say that this is only a one-shot deal. So, the training has to take place by May of next year, and basically never again until perhaps there is a new hazard that is introduced into the workplace. So it is not the kind of thing that really does in any way substitute for or take the form of a real serious, comprehensive notification program.

If you had seen any of the packages that had been put forth and developed by a number of vendors who hope to get rich quick off of right-to-know, you will see that even in the way of training workers about chemical hazards, there is a lot that is being put out there that really is not going to do the job that we think it should.

One last point, and that has to do with the Environmental Protection Agency and their authorities and responsibility under the Toxic Substance Control Act, which do provide some basic possibilities for notification, but haven't really been realized.

That is under section 8(e) of the Toxic Substances Control Act, where there is now a legal requirement that when a chemical manufacturer or processor becomes aware or obtains information showing that there is a substantial risk of harm, they are required under law to notify the Federal Government.

When you look at the notices that come in, you see that many of these situations that are being reported in these notices deal with workplace situations, they deal with workplace exposures, but you also see that many of these notices contain a lot of confidentiality claims, the name of the company, the name of the chemical, it is all held confidential.

When you try to get that information from EPA, they say no, it is confidential. So the bottom line is that the information has to be reported to the Government by the employer. The employer is under no obligation to tell the workers. EPA is under no obligation to tell the workers, and in many cases, the information is confidential, so the employer knows and EPA knows but nobody else does.

So, in conclusion, just to emphasize that there really are no regulations, practices or programs in place under the Federal legislative structure that do provide for notification and medical surveillance and treatment to workers who are at high risk; that our national laws and regulations, particularly those under the Occupational Safety and Health Act, have begun to reduce workplace exposures, and so, hopefully, there will be less of these in the future, but we do have, as a result of past and current exposures which are uncontrolled, disease and death occurring in the workplace, and we believe that H.R. 1309 is a, if enacted, would be a major step towards establishing a necessary system for notifying these workers at high risk, and providing the follow-up and treatment that they need and deserve.

Thank you very much.

[The prepared statement of Margaret Seminario follows:]

PREPARED STATEMENT OF MARGARET SEMINARIO, ASSOCIATE DIRECTOR, DEPARTMENT OF OCCUPATIONAL SAFETY, HEALTH AND SOCIAL SECURITY, AFL-CIO

NOVEMBER 6, 1985

Mr. Chairman, I appreciate the opportunity to testify on behalf of the AFL-CIO in support of H.R. 1309, the High Risk Occupational Disease Notification and Prevention Act of 1985.

For far too long, workers have had to bear the burden and cost of occupational disease in this country. Workplace exposures to toxic substances have been linked with disease in a wide number and range of occupational groups. The experiences of asbestos workers, cotton textile workers, vinyl chloride workers and coke oven workers are now tragically familiar to us. Yet many of these workers, particularly those who left their jobs more than a decade ago, have no knowledge that they are at increased risk of disease. For workers exposed to toxic substances which are less recognized hazards there is little likelihood that these workers are aware of the risk of disease they face. Even for those workers who do have knowledge that they are at increased risk of disease, it is unlikely that proper medical monitoring and follow-up is being provided. Workers who are the unfortunate victims of occupational diseases often face disability and death unaware that they may be entitled to compensation under state and federal law, and are left to shoulder the cost of disease.

Only through legislation which mandates notification, follow-up and treatment will workers at high risk of occupational disease be given the attention and care they need.

Many industry representatives have expressed agreement with the concept of notification and follow-up of high risk groups of workers. However, according to these industry representatives practices and programs in place under existing law are sufficient to accomplish the task. We do not agree.

Despite the claims of many industry representatives who have voiced opposition to this bill, there are no requirements or system that ensure notification and medical follow-up of workers at high risk of disease resulting from occupational exposures. None of the agencies with responsibility for worker safety and health and control of toxic substances provide for such notification and follow-up in their regulations or programs.

The National Institute for Occupational Safety and Health is mandated by the Congress to conduct studies to identify work-related health problems. In conducting epidemiologic studies NIOSH has a policy of transmitting the results to the employer and to the union if one exists. However, NIOSH makes no attempt to contact the workers who were the subjects of the study even though the agency has names and addresses of the individuals. Unions oftentimes use their newspapers or other publications, regular meetings or educationals to inform the membership of problems that have been discovered through such studies. Employers may do the same. But neither employers or the union representatives have access to the names of the individuals included in the study because such information is confidential. In addition to the workers who were included in the study there are usually many similar populations exposed to the same hazards or processes at other worksites that were not studied. These workers may face the same if not greater risk of developing disease, but receive no information or notification from NIOSH.

The Occupational Safety and Health Administration has the responsibility and authority to regulate toxic substances in the workplace. Under the OSHAct, standards for toxic substances issued by the agency must include medical exams where appropriate, and all OSHA health standards issued to date do contain requirements for medical surveillance and most require that workers be notified of the results. OSHA health standards could provide the foundation for a notification and follow-up program for workers at high risk of disease. However, due to severe limitations in the standards and their design, this foundation has yet to be established.

OSHA has issued health standards which require medical surveillance for only 22 toxic substances and noise exposure. As formulated, however, the standards only cover and require medical exams for currently exposed workers. If workers were previously exposed or move into a job where there is no exposure to the toxic substance, medical examinations need not be provided. Given the long latency period for many occupational diseases, by design the OSHA standards fail to monitor those workers who may be at highest risk of developing disease - workers exposed in previous years to high levels of the toxic substance before exposures were adequately regulated and workers who are no longer exposed when the disease manifests itself.

The AFL-CIO has urged OSHA to reformulate its health standards so that medical exams are provided not only to currently exposed workers, but also to formerly exposed workers who are at high risk of disease. Unfortunately, this proposal has been opposed by industry representatives who have rejected even a minimal requirement to notify workers at the termination of employment of the potential risk and to offer guidance on appropriate medical examinations for future years.

Opponents of H.R. 1309 have claimed that OSHA's Hazard Communication Standard issued in 1983 and scheduled to go into effect this year requires notification of workers who are at high risk of disease. These claims are not accurate. The OSHA standard is designed to communicate the hazards of chemicals to workers, not the risk of disease. Specifically the training and education requirements require that employees be informed of the requirements of the standard; operations where hazardous chemicals are present; the location and availability of chemical lists and data sheets; methods used to detect the presence of hazardous chemicals; the physical and health hazards of the chemicals; protective measures; and the details of the employer's hazard communication program. There is no requirement to inform workers of levels of exposure in the workplace, nor to conduct medical exams of workers exposed to hazardous substances. Moreover, the training and education is required only once upon initial assignment. No routine or follow-up training need be conducted unless a new hazard is introduced into the workplace. This standard hopefully will provide workers with additional information on workplace chemical hazards, but it will not establish a system for the notification, follow-up and treatment of workers at high risk of developing occupationally-related diseases.

A third agency with responsibility to regulate toxic substances in the workplace is the Environmental Protection Agency, under the Toxic Substances Control Act (TSCA). Section 8(e) of TSCA requires all chemical manufacturers, processors, and distributors to notify EPA immediately when they obtain information indicating that a chemical poses a substantial risk of harm. Many of these 8(e) notices filed to date involve workplace exposures to toxic substances and some report the results of epidemiologic and clinical studies. While under the law EPA must be informed of such findings, there is no requirement that the workers who are exposed to these chemicals or the subject of employer's studies be notified of the results or even the filing of the notice of substantial risk. In fact, many of the companies claim information on their 8(e) notices confidential often withholding the name of the company and the identity of the chemical from the public. Workers may be at increased risk, but nobody except the company and EPA knows.

In conclusion, there are currently no regulations, practices or programs to notify and provide medical surveillance and treatment to workers who are at high risk of developing occupational diseases. National laws and regulations have begun to reduce some workplace exposures, but past and currently uncontrolled exposures continue to cause disease and death. H.R. 1309, the High Risk Occupational Disease and Prevention Act of 1985 will, if enacted, finally establish a system for notifying workers at high risk and for providing appropriate medical surveillance. Such intervention will save thousands of workers from an early death and in the long run such a system of notification will help provide the necessary incentives to employers and manufacturers to reduce risk and exposures in the workplace.

Mr. GAYDOS. Any questions?

Mr. HAYES. I just want to make a comment, could lead to a question, I think. It will be very basic.

We have six witnesses here as a part of this panel, all of whom have expressed support for the legislation now pending, H.R. 1309.

Some are representatives of unions that obviously have been able to negotiate some safeguards and some measures of protection through its collective bargaining process, which we must admit now is under attack in my circles, and even as we propose some tax reform here, which has been suggested as a part of that package that workers assume the responsibility through taxes, payment for this kind of health and welfare coverage.

So, generally, the atmosphere in the procedure that we are going through now would indicate that we are the rough side of the political mountain, so to speak.

Now, Dr. Mirer articulated, I think, in his statement, six areas within a circle that all of you have alluded to in one form or another, that are proposals that we need to travel in the direction of research, prior testing, exposure control, surveillance—that is one question that bothered me, by whom—are we suggesting that the fox ought to be in charge of looking after the chickens, so to speak, which is the employer in many instances.

Informing people of their right to know, not only the workers, but the employers, in another direction you would think we go. Treatment after the contracting of the particular disease, and who is to pay for these kinds of violations.

Now, you have that kind of program which I agree with, with an administration—in the statement, you said we can't go on forever, in the face of the administration's hostility, you know, they are opposed to these kinds of things.

My basic question, you have got a champion here, there is no question about our colleague here who is chairman of the subcommittee——

Mr. GAYDOS. Thank you.

Mr. HAYES. H.R. 1309. But how do we get it passed? We are part of what I consider to be a media kind of thing that is willing to give more attention returning a whale to its safety in the Pacific Ocean than they are to prolonging the life of human beings. I am using that as an example.

How do we turn that around? How do we change that? Even if we pass this, in order to police it, and make it—and it is going to be tough to pass—we are living in a period now when we are trying to find ways to reduce Government contributions to social programs, rather than increase the possibility of—even if we pass—not fund the policing—in essence with OSHA, we have got some problems there, even under this context.

So, the AFL-CIO is not different from the national unions I have been a part of for quite some time. I know they are concerned about how we do it. And I just want to know if you have any suggestions.

Sure, you can write letters to some of these people who are in Congress, but somewhere along the line, we got to change our thinking, change the media's approach to this problem before we can begin to rally mass support for this kind of legislation, and even if it was passed, its right to exist, its effectiveness is at stake, I think.

Mr. GAYDOS. Anybody want to comment on—yes, Jack?

Mr. SHEEHAN. I just looked the list to see who is registered up here, and maybe that we all are, but let me just begin the process.

Indeed, Congressman, you made some reference to the fact that employees' health care plans may now be subject to taxation, at least the premiums thereto, and sort of taking off on that comment, I hope it is not going to become a reality.

Mr. HAYES. I do, too.

Mr. SHEEHAN. But if indeed it does occur, how much more therefore will workers want to insist that the health care programs that we have in place to provide a greater type of service than which we are seeking under this law?

But your basic question, however, is how do we get the bill enacted? I personally feel, Congressman, that the tide is turning. I know that Congressman Gaydos is the chairman of this subcommittee, has for many years been fighting a tide that was going against us.

The tide was to take away what we had. The tide was to seriously amend the OSHA Act, and maybe indeed some of its standards.

Now, that tide is changing, I feel, and what we are beginning to witness is a wave that is beginning to develop here as to now, what we should be doing and going forward.

There are a number of legislative efforts already in the Congress that indicate that the Congress is willing now not to go against what we got, but now to push forward. There have been a number of issues on the floor, one way or the other, they nevertheless indicated an intensity on the part of Congress, sanitation standards, for instance, for former employees.

I think what you have here is another indication of—and the fact that this bill has been developed at this particular point in time does not get necessarily at some of the workplace regulations that we want OSHA to do, but nevertheless, gets at a more basic element as to whether people in this country do, in a way, have an expanded right to know, and have an expanded right to have their health care systems provide that service.

What I would suggest to the committee as to how we get this passed, let's test the waters. Let's see where we go from here. I think we have nothing to fear on this, pass it out, and let us see where we are, and if we are right, that the tide is changing, I think we got a bill here that at the least common denominator is just merely advocating that we disclose information that we already had stored up in the various studies.

I remember some years ago a Dr. Finklea was being severely criticized for not notifying workers. But that was at a time in which the hammer was coming down on OSHA and NIOSH. Now, I think it is not so much a hammer on OSHA and NIOSH, I think the Congress is saying, what has happened to it?

You yourselves may indeed be beginning to express that wave. So, I think that we ought to test the waters, I think that there is a change in attitude about workplace safety.

Mr. GAYDOS. If I may put on the record, Shelley, at this time, that in years past, I think the philosophy prevailed that there were those that wanted to destroy OSHA and its very fundamental concept, or to get the bill amended. They couldn't do it because of the public concern which Jack has alluded to. Their approach over the past 5 or 6 years was to do it on the appropriations bill, chisel a little bit here, cut a little bit over here, and nip it here, and it was evidenced by the fact that in the appropriations bill, we had language with limited coverage, either the 10 or less, and things like that.

That is how they attacked it, those opponents of the bill. I half agree with Mr. Sheehan that I can sense a change of philosophy, even among my Republican colleagues, those that maybe at one time were predisposed to be against it, because it was OSHA.

I see a sensitivity emerging to the legislation, I see a whole change of concept. They are willing to talk about it now. I am not saying just Democrats or Republicans, but that is primarily where the rift was, it was on a party basis for a time, having been attached with the legislation from its concept way back when, when we were writing the act, and you remember, Jack, you and Shelley and some of the other fellows here, when we were writing this act 15 years ago.

But I see that definite change, so maybe you and I will be around here long enough to see a real change, whereby we will be able to maybe be discerning, get at least half the pie, and make the fundamental changes where it is necessary.

I remember one instance that this committee was actively engaged in, a short 6 months or a year ago. We had a couple of chemical workers up, I think, from West Virginia or South Carolina. I can't even remember when.

And I remember they, the way they presented their testimony, very hesitant, weren't sure of their English, their education was limited, they worked all their life in this particular plant, and there were two of them in particular, one very emaciated, they had a very definite inability to express themselves, but they made telling arguments, and they commenced to tell the committee how they worked with these chemicals with their bare hands, and ended up with cancer of the bladder, of the liver, terrible diseases, actually has erased everything that is humanistic about the person, and when you have bladder problems and things like that, you have got problems, as you well know.

Maybe if you had a choice of which disease to affect you, you would stay away from bladder disease.

Dr. **Miller**. Absolutely.

Mr. **Gaydos**. A lot of people don't realize that. But I will never forget that, and I remember that testimony was given in conjunction with, and in support of the hazard communication standard at that time, which was so late in coming.

All I can say is that Charlie, having raised the question, and Jack, I think you responded right on point, I firmly believe that this change is about hopefully to overtake us, and that this might be the best legislation here, and I don't care if we don't get it through with all of its ramifications, if we at least get the principle through.

Mr. **Hayes**. I have no problem, by the way, with that assessment of my position. I guess I am somewhat impatient, I will confess to that, because I heard certain testimony before this committee, from certain employer groups that would indicate that they are more concerned about costs, as the young lady reads, than prolonging the life of a human being. That is what bothers me.

Mr. GAYDOS. I would hope that that would be the change—yes, I am sorry.

Dr. MILLER. I just wanted to make a comment. I work a lot as well with community groups that are dealing with toxic waste in their communities, and I think the tide is turning on these issues because people are being affected, they are concerned and they are out there, and I don't care whether you are a Democrat or Republican, you have got a hazardous waste site in your district and people are unhappy about it, people are waking up to what the time bomb is in their lives, and I think it is the strongest rising political issue that is out there among people that, yes, it is overtaking Congress, and I think that is exactly what is happening, is that it takes a while for things to overtake people at higher levels.

I think that is an important point. And with regard to Mr. Hayes——

Mr. GAYDOS. I wish we wouldn't have so many budget problems now, because if we could devise——

Dr. MILLER. Capitalize on that.

Mr. GAYDOS [continuing]. This legislation where we could help our industry, actually help them, because I can understand their concern for costs that might overwhelm them. That is the thing of it. That is why if we approach this, we must do it in such a way that we answer those problems.

If we didn't have budget problems down here, I think we could show industry where they would save a heck of a lot of money.

Dr. MILLER. Well, that is the point I wanted to make to you when the question of compensation of raised, which is a point I wanted to make which I didn't get a chance to do so. Let me quickly go back to that cost point.

Mr. GAYDOS. You have got to do it with Peggy's acquiescence, because you know, we interrupted her—and is it OK for him to go on?

Ms. SEMINARIO. Yes.

Dr. MILLER. Very quickly, one is that if you do pass the legislation, the legislation has a life of its own which will persist beyond administrations.

And I would say to you that if the present administration is going to throttle this now, even it is passed, there will be a different administration at some point in time, and having the law on the books then it will be very useful, hopefully.

And I think that is a reflection of the times.

Finally, with regard to workmen's compensation, I think it is important to remember that compensation only pays for lost wages and medical benefits. This bill will firstly allow the health care costs to be diminished because it will put it in a preventive mode, as I said earlier, but will also, if you catch a disease early, will allow people to continue to work, if you have exposure, and therefore prevent the lost wages aspect of compensation that is apparent.

And more to the point, since these are latent diseases, the people who are getting the diseases have already retired, many of them get their cancers after they are out of employment, ergo have no lost wages, so therefore, no compensation for lost wages, and in fact, their medical costs under this bill would be picked up by the health insurance carriers.

And finally, in my experience having done these notification programs, when people are taken care of, when they are being screened and when they feel that the company is taking care of them, they are much more hesitant to sue the company or to take legal action against them when they feel like they have been appropriately treated and handled, and that is the personal point from experience.

Mr. **Mirer**. A couple of comments.

One, I appreciate Mr. Hayes' comments. I have tried to be optimistic about—and testified in some detail reasons for optimism about improvements of control of occupational disease.

But it is not an easy path, when we are in a situation with regard to the regulation of chemicals and other public health interventions, where industry and labor would agree on the need for certain steps, such as tightening of the formaldehyde standards, where industry has testified in front of OSHA for a threefold reduction allowable exposure to formaldehyde.

And after years, we still don't have a new formaldehyde standard. I am not sure that there is a clear path to improvement here. I do know that something has to give, but I am not sure that we end up on the side of public health.

The second point, and I am not a physician addressing this bill, and the question of half a loaf, if there is a half a loaf that we can choose here, I would take the half that has to do with the provision of quality followup medical services funded out of some contributions other than the public treasury as the important half of this bill.

And the reason for it is that it is easy to fall, say, we will do notification. Notification doesn't cost much, and it is a basic human rights, and there shouldn't be any problem with getting that.

But, notification without the possibility of getting the followup, without the possibility of seeing a physician with decent training in occupational medicine, without access to the better health care facilities, is going to condemn—we won't get anything for it.

We will get something. We will get some small improvement for it, but that if there is an opportunity here with a change of climate, I think it is the provision of quality medical services.

And I also think that this is an area where I would hope that our professional colleagues in industry would support the need for that kind of facility, for that kind of initiative to be done.

Mr. **Gaydos**. It is a shame we don't have those that have questioned the necessity of legislation here, because we have a good panel, and I think it would be very interesting, and I think we would clear the air, maybe get a lot of things down on record.

I am so glad that so many showed up for this. Mr. Bartlett was here, it is just a shame he didn't have a chance or an opportunity to ask some questions, having other assignments.

Let me ask a couple of these questions while I have this illustrious panel.

There is some concern that notifying the worker that he or she was at risk of getting some fatal disease might create emotional problems for that person, especially if they never got the disease or were at a particularly low risk of getting it.

Does anybody see that being a problem?

Yes, Shelley? These are things I wanted to get on record.

Mr. **Samuels**. One of the reasons why we conducted the demonstration programs that Ken Miller talked about, was to deal with that issue. There are no serious anxiety problems, and the reason for it is the way it is handled.

For example, the National Cancer Institute was responsible for every social security recipient receiving a small card with their check that simply said, if you worked in a shipyard or somewhere else where there was a lot of asbestos, you may be at risk, and you ought to call—and it gave an 800 number, or see your doctor, or contact your union, and it gave our name, for example, and so forth.

That was very successful, because we don't give people credit for understanding that they can be at risk, but that doesn't mean that they are going to have the disease, and if you have the qualifiers, if you are honest with the worker and his family to begin with, the anxiety simply doesn't arise.

Mr. **Gaydos**. Then you would say, then, as a matter of record, that having gone through, not an experiment, but a practical case, a series of cases, that no adverse type of results occurred, is that right?

Mr. **Samuels**. No, you are right. I hesitate to give you a number, because I am bad on numbers, but at least hundreds of thousands of workers received that notification from the National Cancer Institute.

The National Cancer Institute evaluated that program. It came up four stars, and demonstrated that we can conduct in this country, cheaply, effectively, without unnecessary anxiety, programs of notification and follow-through.

We tried with the National Cancer Institute to follow through on those cases, and there isn't any question that we saved some lives.

Mr **Gaydos**. Any other comments on that?

Mr. **Sheehan**. Just a quick one, Congressman. What is the option? The option is no notification, perhaps no stress, and the eventuality of a preventable disease.

Mr. **Gaydos**. The status quo that we have now.

Mr. **Sheehan**. No, that isn't the way I wanted to say it. I wanted to indicate that the way you have it now is no notification, maybe no stress, but you end up with a preventable disease that if you had notification, which I think that that issue of whether there is stress or not ought to be faced that the price that you may pay may be some stress, but the advantage that you receive is not the eventual stress that comes from a disease at that point that may be irreversible.

I don't think it is a valid, in other words, it is a valid opposition, because what we are attempting to do is prevent the consequences of an exposure that early notification and intervention might give.

Mr. **Gaydos**. Yes, Doctor?

Dr. **Silverstein**. I would like to, first of all, Jack, I would like to take slight exception to what you said, although I certainly agree with the thrust of it. I think that the current situation is one in which people are, in fact, receiving notification of sorts.

But that notification is of the most inflammatory and unproductive kind. People are notified in general through unsubstantiated media stories, and it is that type of notification that currently goes on that leads to paralysis and emotional trauma.

My experience has been—I should say that I have had experience standing before and with many groups of workers, and had the opportunity to discuss with them their high risk, and the things that need to be done with respect to that risk.

And I found, and I am sure that others on the panel has had the same experience, that when that type of notification takes place in the framework of a controlled program, and a set of constructive options are offered to people, that all that develops from the notification process is constructive and effective activity.

Mr. **Gaydos**. Anybody else want to comment on it?

Dr. **Miller**. I would like to add something and sort of echo what Mr. Silverstein has said.

When we worked in the Augusta project, I think the biggest problem was not notification, but the lack of notification. There were rumors all around that plant that this chemical—most workers are aware that chemicals in general are bad, but they don't know which ones, what they are going to do to them, and so forth.

And so there is a lot of fear and misinformation, which the notification actually addressed, cleared up for people, and put it into the correct perspective. We, in that situation, and the other two models I described, really did not run into anybody who had real problems dealing with this information.

In fact, some of them had to be convinced that they were, in fact, at risk, and needed to come in for their examinations, and that it was a worthwhile effort on their part. Some people tend to be somewhat resistant.

So, I just want to echo what Mr. Silverstein has said, in particular that this really does clear the air.

Mr. **Gaydos**. Let me raise a question and be a devil's advocate. An individual works in a chemical plant, handling a solvent or some chemical that is known as carcinogenic and causes lung cancer.

At the same time, he is a very heavy smoker. Do you see any problems with that outside causation, with what we are trying to do here with this legislation? I am asking this question again to purposely be argumentative, so that we might be in a position to explain properly, if and when the arguments occur.

Yes?

Mr. **Samuels**. It, in fact, is a very good question, and the bill, by using the term "health promotion," a term taken out of the report of Franklin Delano Roosevelt 50 years ago, I mean he, in his report, said health promotion, is dealing with non-occupational factors which do impact on whether or eventually some workers might develop a disease.

Disease is not caused by one thing, it is caused by many things. By being able to initiate these programs, these work site programs early, which we are trying to do, and many companies are trying to do, we reduce the risk that the occupational factor becomes the final agent in finally pushing that person over the brink into manifest clinical disease.

That is exactly the kind of situation that Ken Miller dealt with in Port Allegheny and in Augusta, GA, and nationally with the pattern makers, and perhaps he would like to elaborate on that.

Dr. **Miller**. I just want to add that in my testimony, I said that there would be a lot of spinoff benefits from this kind of notification. I don't care if your lung cancer, in terms of attribution, is going to be attributed to the workplace or your smoking.

If I screen you and I find you have a cancer and I treat you, my particular perspective as a physician is that I have helped you and saved you.

And those kinds of spinoff benefits, in terms of health care costs to the insurance carriers that employers have to pay for, and those kind of general public health screening benefits that come about are, I think, side benefits of this notification project.

If we can, through notification, by telling someone that they are exposed to a substance that causes lung cancer and they are smokers, we get them in there and we screen them, not only will we find out what their problem is, but we may be able to do some health education and health promotion with them to get them to stop smoking as well as no longer be exposed, if that is the situation.

I think that issue really raises itself in a more difficult manner when you are trying to legally and for compensation purposes and liability purposes sort out the different risks and attribute them.

Five percent of my lung cancer is from asbestos and 80 percent is from cigarette smoking. No one can do that, and I do think you run into problems when you are that end of it, but in terms of the notification and the ultimate screening benefit, the public health benefit, preventive medicine benefit that we get out of this, I don't even think that that is a relevant issue.

Mr. **Gaydos**. Any other comments? Yes?

Ms. **Seminario**. Just to follow up on that and the way that the bill is designed, it would target those people and provide notification where there has been occupational exposure. You are just not going out and making this a smoking prevention and education program, but for those individuals who may be smokers, there may be a synergism putting them at an added increased risk, it also provides those kind of benefits, because those are the people who are particularly at very increased risk.

We want to get at those people, provide them notice that they are at very increased risk and intervene, both through follow-up as well as education, and maybe limit workplace exposures as well as advising that person to change some personal habits and behaviors which may decrease their risk.

And so, I think, in some ways, that the smoking issue is not something that should be thrown up to, you say, well, this is going to cause the problem, and maybe we shouldn't—you know, it is going to confuse the issue, in fact, those people who may smoke and may be exposed to occupational hazards are the very ones who are at the highest risk, that this bill should be directed to.

Mr. GAYDOS. We are going to also get some arguments on this legislation following this type of thinking, where maybe witnesses have claimed in mortality studies, based on laboratory projections and animal studies which would go into the hazardous or potentially hazardous designation or nomenclature, at best, these studies are only guesses as to the real impact of a substance on a worker population, generally or specifically.

Then, further in their reasoning, they go on to say that there is, in that concern, indication that we need better and more accurate information about the effects of these substances on human beings, particularly in terms of exposure levels and periods of exposure.

And I guess that is all designed to say that a lot of these notices going out are premature, are inaccurate, they shouldn't go out. I guess that is what they are talking about.

Now, I would like to get something on record, so that we can answer that thing. We will start with Shelley, and then I will come back to you.

Mr. SAMUELS. And also, I would like you to—I think Frank Mirer ought to comment, but let me comment very generally by saying that as the FDR report indicated, there are always questions of science. You never answer all of them, you never have perfect knowledge, you can never look at a population and then go to an individual in that population and say, you are going to get cancer or you are not going to get cancer. If you do get the cancer, it is caused by this and not by that. You can never do that.

We live with that kind of uncertainty. But the certainty of making a decision to try to prevent the cancer in the first place is something that is absolutely imperative, and about which there can't be any kind of a compromise.

We have to assume, even if we don't have perfect knowledge, that we do whatever we can to provide whatever tools we have developed to workers so that we can prolong life. That is what they said 50 years, and that is what we are saying today.

Mr. MIRER. As always—one of my trades is a toxicologist specializing in interpretation of animal studies. UAW also does some epidemiological research, and I think that this argument about not knowing enough, we don't know as much as we should about the effects of toxic chemicals, but we do know enough to know when we should intervene.

And what has happened recently, we have evolved a series of techniques, techniques for studying people, epidemiology, clinical studies, set of techniques for studying effects of chemicals in animals; bioassays and mechanistic studies.

These techniques were all developed to evaluate the public health hazards that we know about the most, smoking, asbestos, lead, can list the prominent hazards that we knew about in the late 1970's.

When we apply these same techniques which make us so certain of the hazard of asbestos or hazard of smoking, we apply these to the myriad of industrial chemicals that are now being tested, it is the same techniques producing the same results, and they ought to trigger the same public health interventions as a result.

But we are hearing now criticisms of not knowing enough. They are basically the same kinds of criticisms that the tobacco industry raises about, we don't enough about the hazards of smoking, the same criticisms that the asbestos industry raises, we don't know enough about the hazards of asbestos.

We would like to know more about all those things, but we do know enough to intervene now.

Ms. **Seminario**. Just to follow on that. If you look at the level of evidence that is required to really trigger notification and coverage under this bill, either positive epidemiology or the evidence from the animal experiments or clinical information, it is the same type of evidence that is needed to trigger an OSHA regulation.

It is not so different. You need a positive result. And, you know, the bottom line is if this kind of evidence can trigger controls in the industry, which cost quite a bit of money, and also medical surveillance programs, what you are talking about is short of perhaps going through that full regulatory process, a simple first test based on the same information of notifying those individuals.

You could take the same argument looking at OSHA standards, not everybody who is exposed is going to develop the disease. Well, if we wait to figure out who in that steel mill are the ones, and only limit their exposures, we would never have any regulations. The same thing is true here.

When we are looking at basic evidence, as Frank said, which has been used to trigger a response for general public health problems, which has been used to trigger control in the workplace, and saying, use that evidence as a means of identifying the people who have been exposed, that they be at risk and take the proper follow-up and interventation that is necessary to prevent disease from occurring, and treat the disease that does occur.

Mr. **Sheehan**. Congressman Gaydos, I was just thinking along the same lines that Peggy indicated to you. We will continuously be plagued in the rulemaking procedure with this whole question of the degree and the certitude of our knowledge with regard to certain diseases.

If this uncertitude that we had, or have, prevails, it is a sure signal almost to OSHA that you can never promulgate at all in the first place. So we have to move ahead even with the uncertitude at least in the area that we do have some knowledge, and in the rulemaking process, where we move in to control from that certain levels of exposure, we do that despite, let's say, the weaknesses of epidemiology.

But the point I would like to make here is that some of the burden that we carry in the rulemaking process to control at certain levels and inquire the implementation—the cost of implementation, if you wish, of abatement equipment that may have slowed down the rulemaking process in OSHA. We are aware of that. We have indicated that we probably don't have any other alternatives.

But the point I would like to make at this—with regard to this bill, is that epidemiology for information and the weaknesses of it, should not cause us to be that much concerned about the like of certitude where we are merely trying to acquaint workers that, as a matter of fact, you are of a group of people who received injury

30 percent above the population. That is what we are saying. We are not saying oh, what degree you shall control that hazard.

We are not saying whether animal carcinogenity can be used as a precursor for human carcinogenity. We are just simply saying, look fella, you are among a group of people where you had a 30 or 100-percent risk above another group in a similar area.

So, epidemiology here, despite its weaknesses, I think, provides an even more secure basis for the move ahead with information disclosure, because I know we have problems with rulemaking controls, but at least we shouldn't be using the same argument just at the stage where we are trying to dispense with information.

Dr. **Silverstein**. May I add one small note to that? I think people who insist on scientific certainty before engaging in any action are really destined to lead fairly boring and passive lives.

In the discussions that may surround this bill, I think it may be useful to reflect back on the congressional discussions that took place before the passage of the OSHA Act in 1970, because I believe that Congress wrestled with this issue at that time, and reached a fairly clear conclusion that really lies at the basis of the OSHA Act in its current form today.

If I understand correctly, Congress decided, and I believe decided correctly, that it is necessary to act in the face of uncertainties, and I believe that when courts have responded to challenges to various OSHA standards and regulations, that their reviews have reached the same conclusions.

Mr. **Gaydos**. It took us 200 years to pass the OSHA Act, and we still had difficulty. Nobody wanted to believe us. Anybody else want to spread some facts on the record that would be helpful to the committee?

Dr. **Miller**. I would like to add just one final thing for myself, which is that I am continually amazed by this argument, as has been said, we have all been confronted with it regularly, and yet there is an enormous double standard in terms that this argument presents.

If I was a pharmaceutical manufacturer and I put a drug out on the market, and five cases came up where people had a minor effect, that drug would be recalled, and there was no certainty in five cases, there is no certainty if those five people got the adverse effect from the drug.

The FDA regularly puts into—uses animal testing to test drugs and put them into the general population stream. You represent workers who make those drugs, which there is enough certainty there to market that drug and to put it out into the community, and then doesn't require very much certainty on their part to then recall the drug or do things like that.

So, I think the argument of certainty really is mostly a stalling tactic, and in that light, I would say to you that there are millions of people right now who are in need of notification who we already have extraordinary volume of certainty, human epidemiologic studies, one after another, confirming the effects.

We may argue about what level those effects occur. Does benzene cause leukemia at 10 parts per million, which is the present allowable standard, or the 1 part per million that we in the labor movement are arguing for a new standard for 10 years, and still have not been able to get that standard, and the argument centers on the certainty of illness at one part per million.

But nobody would argue that benzene does not cause leukemia, and those people have still not been notified.

Mr. Samuels. Just one additional point. I know I have alluded several times to the New York State report. At that point in history, the report talks about the early detection and the chances of detecting lung cancer early enough and other cancers early enough to really do something.

Now, at that point in history, 50 years ago, less than 1 percent of the detected lung cancer cases were treated successfully; that is to say, they prolonged life. Now, since then, as Dr. Silverstein and Dr. Miller will confirm, from the point of early detection to some successful survival rate, we have been able to increase that from less then 1 percent to 20 to 30 and for some kinds of lung cancers even higher.

And we waited 50 years to have—and at that point in history, the Public Health Commission of the State of New York said, let's go ahead and let's notify, let's early detect, let's try to treat, let's try to help. That was 50 years ago.

New, 50 years later, we are able to do 30 times better for one disease, and we have all this technology, literally billions, hundreds of billions of dollars spent on cancer research, why can't workers benefit from this?

We are protecting the general population with early detection of lung cancer and other kinds of cancers, why can't workers have benefits for this? Why are workers put in a cast and prohibited from having access to that which they bought with their own sweat?

Mr. Gaydos. Are there any other comments? There being none, on behalf of the Chair, let me thank the witnesses for their time, and if you would remember, I think a point well taken, that the next time we have you, and you have always been cooperative, if we could have your testimony in time, I think it would make for a better line of questioning.

I want to really compliment you on being an interesting panel and informative panel. I think we have accomplished a lot today.

I think the record is going to be referred to many times, because I think the discussion was practical, and that is what I think these hearings should be, more practical, so we can use the information on the floor and in other various medias.

So, thank you so much for coming, and the committee's next session on H.R. 1309 will be next week November 13, 9:30 a.m., this room. The subcommittees will stand in recess until that time.

[Whereupon, at 12:30 p.m., the subcommittees recessed, to reconvene at 9:30 a.m., Wednesday, November 13, 1985.]

[Additional material submitted for the record follows:]

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November 19, 1985

Mr. Jack Sheehan
Legislative Director
United Steelworkers of America
815 - 16th Street, N.W., Room 706
Washington, DC 20006

Dear Mr. Sheehan:

Twice now, once in July and once again in November, the Subcommittee on Health and Safety has had the benefit of receiving statistics dealing with workers exposed to various hazardous substances.

After the July hearing, I took the liberty of asking the Occupational Safety and Health Administration to give me their estimates.

In your testimony, you gave specific numbers of workers exposed to various substances:

(1) Benzene. You cite 3 million workers exposed to benzene, yet OSHA estimates 2 million -- 274,000 when service station employees are excluded.

(2) Asbestos. You cite 2.5 million workers exposed; OSHA estimates 375,400.

(3) Arsenic. You cite 1.5 million; OSHA estimates 660,000 in the commercial cycle of arsenic -- 7,400 with exposures greater than permissible exposure levels.

(4) Chromium and chromate pigments. You cite 725,000; OSHA estimates 391,000.

(5) Nickel. You cite 1.4 million; OSHA cites 250,000.

These differences are substantial, Mr. Sheehan. Can you explain any of these differences?

I look forward to hearing from you.

Sincerely yours,

Rod Chandler
Ranking Republican
Health and Safety Subcommittee

RC:DS/kc

cc Hon. Joseph M. Gaydos

Edgar L. Ball
International Secretary

Lynn R. Williams
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United Steelworkers of America
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Leon Lynch
International Vice President
(Human Affairs)

815 16TH ST., N.W., WASHINGTON, D.C. 20006
Suite 706
Phone (202) 638-6929

February 27, 1986

The Honorable Rod Chandler
U. S. House of Representatives
Washington, D.C. 20515

Dear Congressman Chandler:

During the hearing on the high risk of some workers exposed to toxic substances, I noted figures indicating the prevalence in the workplace of certain substances. Consequently, you sent a letter of inquiry seeking substantiation of the levels referred to in the testimony.

The basic data were developed by the IUD and, upon receipt of your inquiry, I requested the IUD to develop a paper identifying the background for the statistics. I am enclosing herewith their memorandum.

Sincerely,

John J. Sheehan
Legislative Director

JJS/tlm
encl.

bcc: Sy Holzman ✓
Subcomm. on Health &
Safety

Industrial Union
Department
AFL-CIO

Howard D. Samuel, President
Elmer Chatak, Secretary-Treasurer

815 16th Street N.W.
Washington, D.C. 20006
202 842-7800

Memorandum

To: Jack Sheehan, Legislative Director
United Steelworkers of America

From: Sheldon W. Samuels, Director
Health, Safety & Environment

Date: December 6, 1985

Re: Inquiry of Congressman Rod Chandler

This is the memorandum you have requested in response to the query of Congressman Chandler on some numbers on the Table in our testimony of which I am the author. We are delighted to provide this information because of its contribution to the current legislative debate.

I. History of the Table.

When this office was established as a cooperating Field Station of the Environmental Sciences Laboratory, Mount Sinai School of Medicine, in November 1971, it was recommended by Dr. Irving Selikoff, then Director of the Laboratory, that the primary area of cooperation should be the development of programs for the management of populations at high risk of occupational disease. The justification is set forth in the testimony, and in prior testimony beginning in the mid-seventies.

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William H. Wynn, President
United Food and Commercial Workers International Union

In 1972, advisors to us (especially Dr. J. William Lloyd, then Chief of Biometrics, NIOSH) recommended that we develop a register of carcinogens and associated target populations in order to develop the sense of dimension necessary to planning intervention programs. Cancers were chosen over other diseases because the data base is most extensive. Since then we have added a register of cardiotoxins and are in the process of developing one for neurotoxins.

The compilation of the registers requires qualitative risk assessment*, which has made access to the American Cancer Society Toxicological Information Center (located at Mount Sinai) an important benefit of our relationship with the Laboratory. Nevertheless, the "numbers" have had to be slowly developed over a long period of time, continually revised and subjected to peer review.

The first compilation was published (in non-tabular form) in the Proceedings of the Workshop on Occupational Disease of the National Workers' Compensation Commission held at the University of Chicago in 1976. The more significant, subsequent publication of the carcinogen register has been in the following peer-reviewed papers:

> "The Management of High Risk Populations" in Proceedings, International Conference on Critical Current Issues in Environmental Health Hazards. Tel-Aviv University, March 1979, K. Dror, Editor, pp. 14-26.
>
> "Workers at High Risk" in Maxcy-Rosenau Public Health and Preventive Medicine, 11th Ed., NY 1980. John M. Last, Editor. Pp. 822-826.

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*cf. "Quantitative Risk Assessment: Report of the Subcommittee on Environmental Carcinogenesis", National Cancer Advisory Board. Sheldon W. Samuels and Richard H. Adamson, Ph.D. JNCI, vol. 74, no. 4, pp. 945-951.

"The Management of Populations at High Risk in the Chemical Industry" in Brain Tumours in the Chemical Industry in Annals of the New York Academy of Sciences, vol. 38, 1982. I.J. Selikoff and E.C. Hammond, Editors. Pp. 328-343.

"Medical Surveillance: Biological, Social, Ethical Parameters", in press. NIOSH*. Journal of Occupational Medicine.

"The Historic-Theoretic Base for the Management of Populations at Risk of Occupational Disease", submitted. American Journal of Industrial Medicine.

These papers all include the following warning:

> "It is not possible to estimate the total number of high risk worker populations because of continuous changes in production processes and worker mobility. Of particular concern are incomplete data about existing risks, the continuous addition of new agents and processes to the "known" list, and the necessary assumption that large numbers of workers may be included in more than one population at risk because of multiple exposures."

What this means is that one cannot add two or the whole list of the population numbers, as was done by Mr. Chandler for chromium and chromate pigments. An additional reason, important to understanding the difference in the numbers generated by different sources, is the difference in the methods of calculation, resulting in incommensurable values. Thus, we never add or total the numbers in the Table. Nor is it necessary to do so for the purposes of constructing the Table or displaying the numbers for the purpose of program planning. We accept living in a world of warts, one of which is that we will never have the resources to do all that should be done. Priorities must be set. The Table helps us set priorities.

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*This paper was commissioned by NIOSH for a conference of theirs and peer-reviewed by NIOSH prior to acceptance for publication. The Table in question is from this paper.

II. Method of Compilation and Calculation.

All the extant occupational health population "numbers" in use, regardless of sources, are estimates derived from differing models, i.e. by making a set of assumptions (selected to fit the use envisioned for the resultant) on the basis of which sets of data are chosen and calculations made. There can be, therefore, no "right" or "wrong" determinations based on the comparison of two numbers each derived from different models. There are "right" and "wrong" activities and purposes defined morally and legally.

In the case of the current OSHA estimates for asbestos, for instance, the manipulations are for cost/benefit analyses specifically prohibited by the courts.

The sources of the numbers are NIOSH criteria documents, National Occupational Health compilations, estimates of OSHA in prior years and our own estimates based on SIC-related data compiled by the Bureau of Labor Statistics coupled with information from our affiliates. The layperson must understand that all estimates result in numbers which simply because they are numbers provide an image of precision. The image of precision is often confused with objectivity. But all depend on subjective professional judgment. For that reason, the estimates were normally chosen from a range of numbers compiled by authoritative investigators. How that was done is illustrated in our discussion of how each of the numbers questioned by Mr. Chandler was actually chosen.

III. Specific Derivations.

A. Asbestos - 2,500,000

On September 30, 1975, Secretary of Labor John Dunlop in an Administration committed to safeguarding the lives of workers, filed for publication in the Federal Register (40 FR

47652) a proposed, revised permanent standard for asbestos. The Dunlop document stated that "three to five million . . . building construction and shipyard workers", excluding insulators and manufacturing workers, are "exposed to asbestos dust."

On April 26, 1978, Secretary of Health, Education and Welfare Joseph Califano, in an Administration committed to safeguarding the lives of workers, on the recommendation of an asbestos task force composed of OSHA and Public Health Service civil servants, launched an Asbestos Awareness Program on the basis of facts presented to him, including the estimate that "approximately 1.5 to 2.5 million" presently employed workers are exposed to asbestos. (See attached release.) These numbers were developed for a program with the precise goal of H.R. 1309. (It was terminated by the present Administration.) For this reason, the range was of most interest to us.

Why did we pick the top of the range? In the most complete study undertaken for any population at risk, a study* by G. Perkel and W.J. Nicholson of the asbestos-exposed workforce (commissioned and peer-reviewed by the Department of Labor), they report "an enormous number of individuals are likely to have had some exposure to asbestos; 27,500,000 since 1940. Those exposed (and) alive on January 1, 1980 (14,100,000) were estimated to have had (a) significant risk of asbestos disease." They estimate that in 1975 3,095,000 workers were potentially exposed on the job.

Given the Perkel-Nicholson companion data on relative risk of sub-populations (same study), we felt justified in choosing the top of the HEW range, i.e. 2.5 million, as a target population at risk.

On April 10, 1984, Secretary of Labor Donovan had filed for publication in the Federal Register (49 FR 14116) an OSHA-proposed standard on workplace exposure to asbestos. In that document they estimated 375,000 workers exposed to asbestos (displayed in the table below).

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*In Disability Compensation for Asbestos-Associated Disease in the United States. Environmental Sciences Laboratories, Mount Sinai School of Medicine. December 1982. Selikoff, et al., p. 52.

products. Secondary processing involves sawing, pressing, slitting or drilling of asbestos-containing materials and, hence, produces some relatively high exposure levels. OSHA does not have more recent survey data on which to base an estimate of numbers of plants using asbestos materials or the number of workers exposed. For analytical purposes, OSHA uses the SIC categories and exposure level provided by RTI. The number of plants and workers are presented in Table 1.

Three groups in the automotive aftermarket may be affected: (1) refacing or rebuilding of friction materials, (2) repackaging of friction materials, and (3) general brake repair and maintenance. The exposures during repacking of friction materials are assumed to be minimal. The major source of exposure to asbestos in this industry occurs during brake repair and maintenance. The number of plants and the number of potentially exposed workers are shown in Table 1.

The shipbuilding and ship repair industry which would be affected is classified as SIC 3731. The shipbuilding industry has increasingly phased out use of asbestos for new building, and, therefore, the primary source of asbestos exposure is during the removal of old asbestos insulation and during repair and maintenance of bulkheads. OSHA estimates that 30 commercial shipyards and 8 naval shipyards would be affected by the revised standard. The number of employees exposed is presented in Table 1.

TABLE 1.—OSHA ESTIMATE OF EMPLOYEE EXPOSURE TO ASBESTOS

Industry segment	Number of exposed workers[1]	Number of plants[2]	Current exposure level f/cc
Primary manufacturing:			
Asbestos-cement pipe	875	9	1.00
Asbestos-cement sheet	225	5	1.00
Friction materials	3,677	31	1.50
Floor tile	4,746	14	
Receiving, introductory mixing	1,187		0.50
Rest of plant	3,559		0.20
Asbestos paper	1,897	22	
Receiving, introduction mixing and preparation	474		0.75
Rest of plant	1,423		0.20
Gaskets, seals and packings	876	26	
Sheet formation, cutting and packaging	219		0.20
Rest of plant	657		0.75
Paintings, Coatings and Sealants	135	5	
Mixing, compounding and packaging	34		0.75
Rest of plant	101		0.00
Textiles	1,125	5	
Wet Process	375	2	0.75
Dry Process	750	3	1.50
Secondary fabricators:[2]			
Cement sheets	4,301	1,076	2.00
Paper products	4,301	1,076	2.00
Packings and gaskets	4,301	1,076	2.00
Textiles	4,301	1,076	1.00
Automotive aftermarket:			
Rebuilding and relining	4,081	140	2.00
Brake repair:			
Garages and brake shops	178,355	68,058	0.15
Gasoline stations	84,961	77,896	<0.10
Shipbuilding and repair[3]	3,044	38	
Shipbuilding	1,522		0.50
Ship repair	304		5.00
	1,218		0.50
Construction:[4]			
Installation of new materials:			
Asbestos-cement pipe	5,456	546	0.75
Asbestos-cement sheet	1,780	177	2.00
Roofing sites	2,480	250	0.15
Repair and maintenance involving drywall removal, renovation and demolition[5]	12,955	1,296	20.00
	38,865	3,887	0.20
Repair and maintenance involving asbestos removal	14,845	1,485	0.15
Maintenance workers in schools, chemical plants electrical generating plants and foundries	NA	NA	0.15
Total workers exposed above 0.5 f/cc[6]			48,844
Total workers exposed above 0.2 f/cc[7]			82,571
Total exposed workers			375,399

[1] Population and facility estimates were based on the RTI report (Ex. 84-026) and updated to 1983 employment levels by JRB Associates.

[2] The number of plants in the SIC codes making up Secondary Fabricators (3451, 3357, 3523, 3531, and 3842) was derived by JRB Associates by taking the number of establishments with 20 or more employees, as listed in the Economic Information Systems data base for 1982, and expanding that number by the percent of establishments with fewer than 20 employees, as listed in *County Business Patterns*, 1980. Not knowing exactly how the 17,204 Secondary Fabrication (SF) workers and 4,304 SF plants were distributed among the 4 types of SF facilities, OSHA assumed that the workers and plants were distributed equally among the 4 types of SF facilities.

[3] Assumed that 20% of 1522 ship repair workers are not in compliance with current respirator requirements. Hence, the number of workers was adjusted to reflect the 20% of exposed workers.

[4] Assumed average firm employs 8-10 workers as is true of SIC 17 (construction, special trade contractors).

[5] Assumed that 25% of 51820 drywall removal, renovation, and demolition workers are not in compliance with current respirator requirements. Hence, the number of workers was adjusted to reflect the 25% of exposed workers.

[6] This figure excludes segments that are in compliance with a 0.5 f/cc PEL such as floor tile manufacturing and those in compliance with a 0.2 f/cc PEL.

[7] This figure excludes segments that are in compliance with a 0.2 PEL such as tile, brake repair, roofing sites, and repair and maintenance.

Source: U.S. Department of Labor, Occupational Safety and Health Administration, Office of Regulatory Analysis, September 1983.

Asbestos exposures in construction are expected to occur when installing asbestos-cement pipe and sheet, sanding vinyl-asbestos floor tiles, installing built-up roofing, removing old insulation, removing or repairing drywall, demolishing buildings containing asbestos products, and removing old build-up roofing. Workers involved in maintenance and repair of pipes, boilers or furnaces in a wide variety of industries and buildings may also be exposed to some degree to asbestos.

The OSHA table was constructed with assumptions detailed in the footnotes to enable the calculation of an annual cost per employee to achieve varying permissible exposure levels. The fewer number of employees exposed per category enables a greater cost per employee. Thus, $9,273 is the manipulated cost per employee in primary manufacturing of asbestos cement pipe at a 0.2f/cc level. Even given the assumptions of the table, however, the cost would be nearer $9.27 per year if all workers engaged in the manufacture, installation, maintenance and disposal of asbestos pipe are considered as a single set, a logical approach in assessing the cost of technically feasible controls, excluding substitution. Since it has been the policy of the current Administration not to reduce the existing PEL, inflating the costs by deflating the number of workers exposed in an arbitrarily defined set is a manipulation justified by the "cost/benefit analysis", ordered by OMB to justify their own policy.

The OSHA number quoted by Mr. Chandler was rejected for the purpose of serious planning of programs aimed at the conservation of human life.

B. Chromium and Compounds - 175,000

This is an IARC (WHO) designated category. The Hexavalent Chromium criteria document (NIOSH 1975) estimates 175,000 workers exposed. This number is used, rather than the 2.5 million estimate derived from the National Occupational Health Survey for all such compounds, because the hexavalent compounds "are of greater health concern" (Third Annual Report on Carcinogens. Summary. September 1983. USDHS/PHS, p. 41). Therefore, our targets for risk management should be selected from populations of workers exposed to that form of chromium.

C. Chromate Pigments - 550,000

NIOSH, in an "alert" memo issued August 1975 on these pigments, estimated 552,000 paint makers and painters are potentially exposed. Their NOHS data (1972) shows 338,469 exposed to just two of the pigments (green and red). This is an IUD number, however, derived from Table 49, p. 378 of Volume III, Survey Analysis and Supplemental Tables. NOHS, USDHEW, 1977. This table identifies the pigment-exposed portions of industrial SIC-coded populations. Some of those SIC populations (19, 22-27, and 30-32) can expect routine exposure to chromate pigments, are commensurably derived, and may be added. The sum: 544,100+.

D. Inorganic Arsenic - 1,500,000

NIOSH (Criteria 1975, p. 15) estimates 1,500,000 potentially exposed workers. Chandler's quotation about those with "exposure greater than permissible exposure levels" is unfounded and irrelevant (especially to those with residual risk).

E. Benzene - 2,976,000

This is an IARC-designated human carcinogen which recent data indicates to be multi-site and potent. Because most exposures can be controlled by a risk notification program utilizing mass media, the entire 3 million PHS-designated population is appropriately targeted (p. 28, Ibid. Third Annual Report).

F. Nickel (Oxides) - 1,400,000

Nickel is a potent carcinogen and teratogen with widespread, usually uncontrolled exposures. The entire population identified as 1.5 million by NOHS ought to be targeted. The next publication of the table will raise the estimate to this level.

IV. Concluding Remarks.

It is my hope that the documented derivation of Mr. Chandler's own sample will convince him that we are not playing games with these data. We are in the business of saving human lives, not in fallacious "cost-benefit" excuses for non-regulation or not extending to workers interventive actions contemplated in H.R. 1309 and available to everyone else for half a century. Nothing would be more satisfying than to construct a Register listing fractions of the numbers we estimate at risk, which would mean that we could save a greater proportion of those at risk with whatever resources Mr. Chandler and his colleagues make available. Reality itself is a wart. Mr. Chandler continues to be poorly served by the Administration. Hopefully, he will work more closely with us.

HEW NEWS

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

FOR IMMEDIATE RELEASE
April 26, 1978

CONTACT: JOHN BLAMPHIN
202/245-6343

STATEMENT OF
SECRETARY JOSEPH A. CALIFANO, JR.
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Scientific studies have demonstrated that asbestos creates an especially high risk of lung cancer and other serio lung disease for workers who have been heavily exposed to this toxic substance.

The total number of workers exposed to asbestos since the beginning of World War II is estimated at between 8 and 11 million. Of that total, approximately 1.5 to 2.5 million are presently employed, while the remainder -- between 6.5 and 8.5 million workers -- were formerly employed in environments with significant asbestos exposure, including 4.5 million who worked in shipyards during World War II. Of those exposed in the past, a certain number -- which we cannot estimate with accuracy today -- have already died, either from asbestos-related or other causes.

Federal government responsibility for regulating current asbestos exposure is lodged in several agencies -- with the

(MORE)

Occupational Safety and Health Administration bearing primary responsibility for regulating asbestos levels in the workplace and requiring employers to provide warnings to current employees.

But, to date, there has been no systematic government effort to notify physicians, past workers and others at risk of the hazards associated with asbestos exposure. Such notification is of special importance because the serious diseases associated with asbestos take a long time to develop -- from 15 to 35 or more years -- and because recent studies have underscored that workers exposed in the past, especially those from the war years, may just now be facing immediate, serious health threats.

As part of my responsibility to promote and protect the public health, I am today announcing several steps to inform doctors, workers and others about the increased health risks of asbestos exposure.

- Dr. Julius Richmond, the Surgeon General of the United States, will immediately send an advisory letter to all 400,000 doctors in the nation. This Surgeon General's advisory will set out the nature of the health risk posed by asbestos, describe certain steps doctors may wish to take when diagnosing or treating patients, and tell physicians where they can obtain additional information about

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asbestos-related diseases. _/Both the physician advisory and a more detailed National Cancer Institute question and answer paper are attached to this statement._7

- HEW will launch a public information campaign aimed at workers and others exposed to asbestos. Dr. Arthur C. Upton, director of the National Cancer Institute, and Dr. David P. Rall, director of the National Institute of Environmental Health Sciences, will co-chair an HEW team to develop a detailed public information proposal in consultation with other Executive Departments, unions, employers and other interested parties. To the extent possible, the campaign will be targeted on those at the greatest risk. I have spoken with Secretary of Defense Harold Brown, and he has directed the Department of Defense personnel to work with us in taking appropriate steps to inform former military and Federal civilian workers in Naval shipyards.
- The HEW team will consider other measures which the Department might take to deal with the asbestos problem, in addition to preparing the public information campaign. Such measures include: improved surveillance, other means of informing

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affected individuals such as outreach through unions and employers, development of further information for physicians, and additional research.

Asbestos is the term used for a group of fibrous materials that do not burn and are excellent thermal insulators. In the past four decades, asbestos has been used for a great number of purposes -- more than 3,000 uses have been identified -- with two-thirds of all asbestos used in the construction industry. Ship construction has been an activity with especially high use of asbestos, since the substance is effective in insulating boilers, steampipes, hot water pipes and nuclear reactors.

Unfortunately, numerous studies have indicated that exposure to asbestos in settings, like the workplace, where it is concentrated, significantly increases the risk of incurring four serious diseases: lung cancer, asbestosis (a progressively debilitating lung disease that impairs breathing and increases risk of serious illness or death from respiratory infections like pneumonia), mesothelioma (a cancer of the chest and abdominal cavities) and certain gastro-intestinal cancers.

Both the Surgeon General's advisory and public information campaign will suggest certain actions that individuals exposed to asbestos can take to reduce or mitigate the health threat to the greatest extent possible. They will

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Asbestosis. Only individuals exposed to asbestos contract asbestosis which afflicts approximately 7 percent of the number of workers exposed in the past. Asbestosis is an irreversible and progressively disabling lung disease that impairs breathing, and individuals with the disease are much more likely to die of respiratory ailments, like pneumonia, than individuals who do not have asbestosis. The Surgeon General advises me that clinical experience indicates a person who smokes and has been exposed to asbestos faces a greater risk of developing asbestosis and of dying from a respiratory ailment that an asbestos exposed individual who does not smoke.

Mesothelioma. As with asbestosis, only those individuals exposed to asbestos appear to contract this disease. Approximately 7-10 percent of those exposed to asbestos in the past die of this cancer.

Gastro-intestinal cancer. Individuals exposed to asbestos in the past are estimated to be about twice as likely to die of gastro-intestinal cancers -- including cancers of the esophagus, stomach and colon -- as non-asbestos exposed individuals. Approximately 8 to 9 percent of asbestos-exposed individuals die of these types of cancer.

In addition to the 4.5 million persons who worked in shipyards during World War II, it is estimated that 500,000 to 1.4 million persons have been employed in shipyards

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since the War. Other occupations in which there has been significant exposure to asbestos include asbestos mining and processing; construction work involving insulation; building demolition; roofing; and automotive work in brake and clutch lining installation and repair.

In addition to the Surgeon General's advisory, information will be available to physicians through other means: Ca-The Cancer Journal for Clinicians, a publication of the American Cancer Society, is publishing this week in its March-April issue an article by Dr. Irving Selikoff and Dr. E. C. Hammond on the effect asbestos exposure has had on shipyard workers; the American Medical Association will be publishing a physician advisory in its Journal; and the attached question and answer background paper prepared by the National Cancer Institute will be made available to doctors through the American Cancer Society, the American Lung Association and all state medical societies, as well as through the National Cancer Institute itself.

The actions I am announcing today with respect to asbestos are based on a number of factors, but two of the most important are: the number of individuals affected who are unaware of the risk and the fact that asbestos is one of the most dangerous and insidious substances in the workplace.

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Given the numbers of unaware individuals affected and the serious risks involved, it is imperative that HEW -- the Executive Department primarily charged with developing health policy -- work closely with other Executive Departments and Agencies in devising all appropriate steps to protect the health of our citizens.

If individuals have questions about what they should do in addition to stopping smoking, they should consult their personal physicians.

# # #

THE HIGH RISK OCCUPATIONAL DISEASE NOTIFICATION AND PREVENTION ACT OF 1985

WEDNESDAY, NOVEMBER 13, 1985

House of Representatives,
Subcommittee on Health and Safety, and
Subcommittee on Labor Standards,
Committee on Education and Labor,
Washington, DC.

The subcommittees met, pursuant to call, at 9:30 a.m., in room 2261, Rayburn House Office Building, Hon. Joseph M. Gaydos (chairman of the Subcommittee on Health and Safety) presiding.

Members present: Representatives Gaydos, Murphy, Hayes, and Petri.

Staff present: Sy Holzman, deputy staff director, and Lee Bassford, staff assistant, Subcommittee on Health and Safety; Rich Fiesta, counsel, and Teresa Faunce, staff assistant, Subcommittee on Labor Standards; and Dorothy Strunk, minority senior legislative associate, Committee on Education and Labor.

Mr. Gaydos. The committee will come to order.

The current issue of "occupational health and safety letter" leads off with an article on efforts of NIOSH and the Bureau of Labor Statistics to improve the gathering of data on occupational disease and notes that the BLS is sponsoring a conference in New Mexico early next month in order to get a better handle on how to improve its capabilities in this particular area.

The question for those men and women in the workplace who are at risk of disease because of an exposure to some toxic or hazardous substance is whether they can afford to wait for NIOSH and BLS or any other agency to improve its reporting techniques.

One of the functions of H.R. 1309, the High Risk Occupational Disease Notification and Prevention Act of 1985, will be to improve the gathering of statistical information with regard to occupational exposures and related diseases.

In two previous joint hearings by the Subcommittees on Health and Safety and Labor Standards on H.R. 1309, representatives of industry and labor clearly stated their views as to the necessity and importance of the proposal, or vice versa.

Today, we will be hearing from a group of witnesses that we have loosely identified as health professionals. I am sure their views and opinions about H.R. 1309 will be on point, and will provide us with the kind of information that will help us in our deliberations on this particular bill.

And I am assuming that there will be a few questions asked, because of the nature of the witnesses, so I would like to make the record complete and as clear as possible.

So, with that thought in mind, I would like to call the first panel, Dr. Needleman and Professor Ashford.

For the record, let the Chair emphasize the fact that Dr. Needleman is a Ph.D., occupational and environmental health programs, Graduate School of Social Work, Bryn Mawr College; and Professor Ashford is an associate professor of technology and policy at the Massachusetts Institute of Technology.

So, on behalf of the committee, it is my pleasure to welcome these two outstanding professionals, and again, in line with what I suggested, we are going to try to listen very intently, make the record as accurate as we can, so that we can go back to this testimony later on in putting together our position paper, whether it is pro or con on this legislation.

So, Doctor, do you want to start? Without objection, at this time, the prepared testimony as submitted to the committee will be made a formal part of these proceedings.

Doctor.

STATEMENTS OF CAROLYN NEEDLEMAN, PH.D., THE GRADUATE SCHOOL OF SOCIAL WORK AND SOCIAL RESEARCH, BRYN MAWR COLLEGE, BRYN MAWR, PA; AND NICHOLAS A. ASHFORD, PH.D., THE AMERICAN PUBLIC HEALTH ASSOCIATION

Ms. Needleman. Well, thank you for inviting me here today to give testimony. I am also here representing the National Association for Public Health Policy, which is a nonprofit organization founded in 1979 to develop and implement public health policy.

I would like to start by expressing my strong support for this bill in general. Providing warnings for workers at high risk in their workplace is not only a matter of good preventive medicine and public health, it is also an ethical obligation, as the sponsors of this bill recognize.

So, the modifications that I am going to be suggesting, I would hope would not be construed as criticisms of the bill's basic intent.

There are a few areas in the bill that I think need some modification to head off some predictable problems in implementation, and I have noted these in my prepared statement.

I think some of them are likely to be addressed by other witnesses. For instance, the exact procedures to be used for determining levels of health risk and the exact workers to be notified.

So, what I would like to do in my short oral statement here is to concentrate on the portions of the bill that are most related to my own background and expertise, which would be the social and psychological impact of notification on the workers themselves.

And in particular, I would like to focus on four areas: Possibly adverse psychological effects of notification; possible adverse social consequences of notification; possible problems of access to social service supports following notification; and then some implications for manpower training of this bill.

First of all, on the issue of workers' reactions to notification. This is an issue that has caused a great deal of concern, quite properly. It is a more complex issue than it first appears.

Much of the concern has really dealt with the possibility of overreaction to notification. I think, you know, this has been noted many times also by the sponsors of the bill, that possibly if handled improperly, notification might result in hysteric reactions, mass panic, confusion, and chaos.

This is certainly a concern. The evidence for this simply isn't strong in the literature. We don't have research that truly will predict how large numbers of workers would react. There are some anecdotal studies done that do indicate some possible overreaction problems.

I would like to——

Mr. **Gaydos**. Let me interrupt you there.

Ms. **Needleman**. Yes?

Mr. **Gaydos**. I think I get the drift of what you are saying. You think that is a real fear and a real possibility, and you do mention the fact of the sparseness of statistics, indicating that it could happen.

Is that a real concern to you?

Ms. **Needleman**. Well, I think——

Mr. **Gaydos**. That notification could cause that much distress? Because this committee has gone through all this notification business many, many years, and we are talking about down in the mines, you know, as far as pneumoconiosis and byssinosis and all that stuff, and I never found that to be true, though I might be missing a lot, because I am not the most observant person.

But, do you really think that is an important factor that would have great bearing on what we are trying to do here, that people might become frantic?

Ms. **Needleman**. I mentioned it because it is raised so often. My own reading of what we have available as solid research is we simply don't have justification for being as concerned about that issue as many people tend to be.

My concern would really be the opposite, that what you may get here is a problem of underreaction. I think it is much more likely that if handled improperly, without the appropriate supports, you could have what appears to be an information transfer to workers, which actually is not really comprehended by them in a way that they can react constructively to it.

Mr. **Gaydos**. Well, would the lack of statistics in that particular area, would it justify the committee taking the position and concluding that because of that, we are not going to be too concerned about it causing any panic and things like that, and let's get on with the business of trying to get some really reasonable notification?

Would that be unreasonable, for the committee to take that position?

Ms. **Needleman**. I personally feel that would be a very reasonable position for the committee to take.

Mr. **Gaydos**. Do you support us?

Ms. **Needleman**. Yes, I do.

Mr. **Gaydos**. And you are saying that on record, because other people are going to be reading this record?

Ms. **Needleman**. Well, that is my feeling on it.

Mr. **Gaydos**. Could we, as a team, justify that position, the committee and yourself?

Ms. **Needleman**. I think you can. Now, part of my discussion in my prepared statement points out that there are kinds of supports that could be built into the notification program which could lessen the possibility of panic or overreaction problems.

So, I think it is possible to do it all wrong and to get, you know, some negative reactions.

Mr. **Gaydos**. Let me ask my committee colleague, Mr. Hayes. Do you think, Charlie, you are an old union man from way back, you have been around people a long time. Do you think we have a problem as far as that notification causing great concern among the working people, and it gets them all panicked up and they—it seems to me that any kind of a notice that we give would be so welcome, you know, to the working people, because we have gone a couple of hundred years in this country, and no one has been notified about anything by anybody, have they?

Mr. **Hayes**. Mr. Chairman, in response to your inquiry, let me say that any kind of notification would be welcome. There wouldn't be any panic. I come out of an industry where—I don't know if you know much about brucellosis and silicosis and this kind of stuff, commonly known as the hog itch, this the kind of thing people were never afraid to be notified of this kind of situation, I don't think any other kind of industry where you have occupational diseases, where people would be fearful of notification.

I am glad to hear the young lady say she is prepared to support the committee.

Ms. **Needleman**. Well, I think people tend to underestimate the good sense of workers, you know. They really need this information. If they know vaguely that they are in a high-risk occupation, but they don't have solid facts, and they don't have any guidance in what to do about it, I think you are more likely to get anxiety reactions, maybe that don't show up in acute form or large numbers so that you really can—they make the news, you know—but they could be as damaging as any possible fallout from a notification program.

I think if you do notification in such a way that you really provide channels for action, and you know, ways that people can see that they can move on that information and protect their health, you are not likely to get panic reactions. You are likely to get good preventive medicine.

Mr. **Gaydos**. We usually hear this from those that don't favor the legislation. I have great respect for professionals. In their field, they have spent a lot of time, they know the technicalities of what they are talking about, and of course, we are Jacks of many, many trades here in the committee.

We have delved into a lot of technical areas. We are in one here, and tomorrow we are in another, so professionals are very important to us here, particularly doctors of great learning.

And I have found most of these positions taken—or this specter that is referred to, this may happen, by those that are contrary to the legislation. They want to create some kind of a problem. That is my own personal feeling, but I am very happy to hear professionals say that it is a problem, as I interpret you properly, but it is not of that magnitude that would go to the very core of what we are trying to do here.

And the No. 1 priority, maybe it would be down the line on a 1 to 10, maybe down at the bottom, No. 10 or so.

Would that be a correct interpretation of what you are saying?

Ms. NEEDLEMAN. I think so, and there is a provision in the bill for research, and I think this is an area where we do need to carefully evaluate different methods of doing worker notification, so that we find out how to build in supports that will best minimize possible adverse psychological——

Mr. GAYDOS. I am sorry to interrupt you, but this point I wanted you to make, because it comes up so often before the committees, so forgive me for interrupting your train of thought, and would you proceed, please?

Ms. NEEDLEMAN. Well, I would just like to underscore something I mentioned a minute ago, that we have a parallel problem of possible underreaction. And this would be a relatively invisible problem. It could look like the notification program was working just fine, because you weren't getting these panic reactions that people are so concerned about.

But the point of the legislation, as I understand it, is not just to transfer information, but to get constructive responses from the workers, so that they actually do take some actions that will protect their health, or if they should have occupational diseases which are incurable, which would at least give them some supports and enable them to protect their political interests through collective action, perhaps.

So, really, notification is a means to those ends, rather than an end in itself, and I think there are several things that could be added to this bill that would help, both on the underreaction as well as the overreaction, possible problems.

One thing that I think needs to be added in here is some provision for direct access to information by the workers. As I read that section 5, where there are information supports, the plans are for a hotline for the workers' physicians, which I think is an excellent idea, because most physicians have very little training in occupational health. It is not a major part of medical curriculum.

And I think that would be quite a useful thing to have, where physicians could call in and get information, but it is a little indirect, and we have to recognize that many workers will not have a personal physician or they won't go to their personal physician. They may not ask the questions that are on their mind; perhaps their physician is a company doctor, you know.

So I think, really, to accomplish, as I understand the intent of the bill, it would be much more productive or at least a good addition to provide for a hotline which would let workers call in directly.

And I think, indeed, workers, when they see that physician's telephone number on the notification letter, would probably use it to call in anyway, and then they might be told, this line is just for physicians, you know, go to see your physician.

This is really the worst thing that could happen to the caller emotionally, because one of the things that we do know from sociological studies is that in situations of perceived threat, being able to control the situation in some way and take some action is a tremendous help in avoiding demoralization.

And if the worker can directly pick up a telephone and get information himself or herself, this is likely to play a role in minimizing the anxiety that the person feels.

I really can't underscore this point enough. It seems like a small modification to the bill. But I think it could prove to be one of the most important follow-ups to notification that you could provide, because it will reach more workers than the provisions that are presently built into the bill, and it will reach them in a very supportive, constructive way.

But it has to be done right. The people who would staff that hotline would have to be people, professionals, with appropriate training, the sort of thing that is called for in suicide prevention hotlines and child abuse hotlines, where the person on the other end of the telephone has the skills to deal with upset callers, who maybe can't fully articulate their questions, but need some help and some guidance how to get help in their local area.

So you couldn't have it simply as an added-on service without the proper investment. It would have to be a major part of the follow-up services.

Second, I think you may run into some trouble with the distinction between high risk and increased risk categories in terms of the services—the differential services that you plan to provide for those two groups.

In section 4, the bill seems to propose a difference in the treatment of those two groups. And I think I understand the reasoning behind this.

I have just recently served on a task force for the city of Philadelphia to design a notification program for their municipal workers, who have been exposed to asbestos, and we struggled with that same issue, of how to reach the maximum number of workers, and yet, still concentrate the resources on those that needed it most.

It is very hard to do with categories based on job title or occupational category, and I think you will find as we found that there is so much individual variability and exposure within those large categories that people are really not going to be reassured by knowing that their category is increased risk rather than high risk.

And I think at the least, you will want to extend the information services and the access to this hotline I have just talked about to all workers who are notified.

Third, I think since the notification letter may be, for some workers, the only notification they get on which to base their reaction, it would be very good to address all of their concerns as much as possible in that letter itself.

And two things that we know are likely to deter them from seeking medical help after they get the notification letter are a concern for retaliation from their employer; and a concern for medical expense.

And the bill protects them on both fronts, but the worker who is notified may not know that, unless they are told right in the notification letter, which, as I read that section on content of notification, is not at present included.

So I would suggest that you put in the notification an assurance that their medical coverage will support the expense of follow-up screening and that there are antidiscrimination provisions in the bill.

And fourth, as a support to the workers, I think more attempt or at least some attempt should be made to enlist the support of local organizations and individuals who could serve as opinion mediators and alternative information sources to the notified workers.

There is a provision in the bill for worker education, but it does seem to be biased toward pamphlets and other written material, and we know these are probably the least effective way of getting information across.

I think workers are going to be seeking information from their COSH groups, their unions, you know, local professional schools, and that it would be very productive to work through those sources in the efforts to give information, to provide a context for the notification.

On the social consequences of notification, I think one of the great strengths of this legislation is that it does recognize, or it goes beyond this issue of how the workers are going to react psychologically, and recognizes that there could be negative social consequences to them, and that they need protection from those.

My concern would be that as presently written, there might be some gaps in the protection provided, and without necessarily having answers, I would just like to raise some questions that maybe should be considered.

First, can protections against discrimination be made more affirmative. At this point, they are really after-the-fact protections, like much legislation, when after discrimination has been committed, there is recourse.

I think that is a fine provision, but in addition, perhaps we could prevent some of the discrimination in the first place by adding in something that seems to be missing in notification of the worker's employer, that there are sanctions for discrimination.

No one is under any illusions that this will necessarily solve that problem, but I think it would be a good addition. It would be very nice also to make sure that information goes to the worker's union, because the antidiscrimination provisions in this bill are quite strong, but it isn't really spelled out how people are going to learn about them, until an act of discrimination has been committed and the worker has a grievance.

Second, and this one is a little more difficult, there are types of discrimination that could follow in the wake of notification that really aren't dealt with in this bill. The bill mainly provides protection for employer and insurance discrimination, which are certainly two main concerns.

But we know from, for instance, the experience of recovered cancer victims that people who have been publicly identified as being at health risk, sometimes face credit discrimination, housing discrimination.

It may not be possible for this bill to address those areas directly, but it does suggest that you might want to strengthen the provisions for confidentiality of the mailing lists, so that you could control access to the lists, because they could become the basis for some general discriminatory practices.

On the issue of workers' compensation, obviously there is a concern to protect the workers' rights built into the bill, section 8(e) states that the notification should not toll any statute of limitations with respect to workers' compensation claims, except as may be specifically provided by law under a workers' compensation statute.

Now, I think that is probably the way that has to be written, but it should be recognized that that last phrase opens a very wide loophole. In some States, the statute of limitations clock for workers' compensation would start ticking the minute that evidence of occupational disease was found or communicated to the patient.

And, so the worker might assume that he or she was protected, and yet, because the State statutes specifically provided that the statute of limitations did start ticking for the worker, if they didn't know that and make a timely claim, they could end up not being able to exercise their workers' compensation rights.

I think what I would suggest there is that at least an alert to the worker be put into the original notification letter, so that he or she would know that they should check into the State laws on workers' compensation should occupational disease be found.

On access to support services, in the social service area following notification, I think the plan, the bill's plan for establishing a nationwide network of occupational and environmental health centers is really a major step forward, and I would like to applaud the committee on supporting that.

The inclusion of family services, in particular, as part of the centers' capabilities is particularly important, and I would urge you to retain that in the bill at all costs.

There is strong support for the idea that counseling can help medically. There has been some recent debate in medical journals on that, but there is clinical evidence that counseling really can be as important as many other therapeutic measures.

And I think counseling will be especially significant for those high-risk workers who discover that they have occupational diseases which are medically incurable.

Building social services into the occupational clinics' capabilities has value going beyond the direct medical effects, since social service professionals could deal with the nonmedical impacts of occupational disease, and they could free up time for the clinic's medical staff by taking the load of some of the unavoidable non-medical patient services.

I would just like to draw to the committee's attention, however, that of the 60 occupational health clinics in the Nation, very, very few presently have this capability, and some of the provisions for certification seem to assume that those capabilities are there.

You may want to strengthen the provisions on training. Most of the clinics applying for certification will really have to add on staff, provide the comprehensive services that you presently envision.

And along those lines, I would also just like to point out that appropriately trained professional manpower may be a limiting factor here, and while it probably goes beyond the scope of this bill, the bill may need some sort of companion legislation to provide for manpower training, particularly in the area of social service personnel.

Because at present, that training outside of special programs like the one I direct really is not part of routine professional education in the field of social work.

I think that probably uses up my allotted time, and I would be happy to answer questions.

[The prepared statement of Carolyn Needleman follows:]

PREPARED STATEMENT OF CAROLYN NEEDLEMAN

Mr. Chairman, Subcommittee members, thank you for inviting me to give testimony at this hearing. My name is Carolyn Needleman. I am a sociologist and social work educator, currently on the faculty of Bryn Mawr College where I head the Doctoral Program in the college's Graduate School of Social Work and Social Research. I also direct Bryn Mawr College's doctoral social work concentration in Occupational and Environmental Health, a program designed to train professional social workers for advanced practice and program development related to the treatment, compensation and prevention of occupational and environmental disease. As director of this program, I have had professional experience with the design and evaluation of worker notification programs. I am also speaking today as a representative of the National Association for Public Health Policy, a public interest organization affiliated with the American Public Health Association.

I would like to start by expressing my strong support for the High Risk Occupational Disease Notification and Prevention Act, H.R. 1309. The additions and modifications that I will be suggesting for this proposed legislation should not be construed as criticisms of the bill's intent. Providing health warnings to individuals at high risk for occupational disease is not only a matter of good preventive medicine and public health. It is also, as NIOSH has recognized in its own review of the issue, an ethical obligation. Workers have a right to this information, so that they can make informed decisions, individually and collectively, about their own best interests -- legal, political, and social as well as medical.

It should also be kept in mind that through the Freedom of Information Act, individual workers already possess formal rights of access to government held information about their toxic exposures, including some of the NIOSH data that have received so much publicity. Also, the OSHAct of 1970 guarantees them access to company records on their health status and exposure history. Thus an affirmative program of individual notification does not expand rights into entirely new territory. What it does do is to bypass some of the barriers that have prevented workers from obtaining and using risk information to protect their health.

This bill as presently written shows a great deal of sensitivity, both to the plight of workers and to the problems that have cropped up in past notification efforts. However, there are a number of areas in the present draft that should be expanded or modified, in order to head off some predictable difficulties in implementation.

Some of these areas involve issues likely to be addressed by other witnesses -- for instance, the scientific procedures to be used for determining levels of health risk in various occupations, mechanisms for insuring balance of perspective in the composition of the proposed Risk Assessment Board, and the problems of locating for notification those workers who have moved or retired since the time of a known exposure. Since my allotted time is necessarily limited, I would like to touch on those issues only lightly, and instead to concentrate my testimony on the portions of the bill related to the social and psychological impact of notification on the workers themselves. Specifically, I will be focusing on:

1. Possible adverse psychological effects of notification.

2. Possible adverse social consequences of notification.

3. Possible problems of access to social service supports following notification.

4. Implications of this legislation for research and professional manpower training.

If time allows, I would also like to comment briefly on the funding aspects of the bill.

Workers' Reactions to Notification

Much of the concern about notifying individual workers of their job related health risks has focused on the problem of possible overreaction. The literature on this issue is extremely slim. We do have a few studies documenting that knowledge of increased health risk can lead to anxiety, hysteria or psychosomatic illness, increased absenteeism and low morale at work, and unwarranted demands for medical and legal service. This small amount of research, which cannot be considered predictive of how the general working population will react, has led to the fear that notification might result in mass panic on the part of the notified workers. Congressman Gaydos alluded to this concern in his statement in the House last March, when he pointed out NIOSH's reluctance to send individual notifications to 250,000 workers known to have past toxic exposures, on the grounds that such warnings might produce "confusion and chaos."

Without discounting the problem of overreaction, I would like to suggest that there exists a potentially far greater danger of underreaction to notification. We know that in general, people faced with the possibility of illness show extraordinary reluctance to seek medical attention. Research on care seeking shows that even when clear symptoms of chronic disease exist, for instance lumps in the breast suspected of being cancer, the individuals affected typically wait months or even years before seeing a doctor for diagnosis. Even in the case of acute illness, victims deny or reinterpret symptoms and delay seeking medical help. For instance, one recent study found that in a group of heart attack victims, most initially resisted the idea that their severe chest pain was anything but indigestion, and even those who correctly diagnosed their condition as coronary waited an average of 10 hours after the onset of the attack to seek medical help. Given this well documented pattern of disease denial, it seems very likely that notification could become simply a ritual without constructive effect. When notified that they have work-related health risks and should undertake a lifelong program of medical monitoring and perhaps changes in lifestyle and working conditions, workers might simply ignore the message.

Unlike the overreaction problem, the underreaction problem will be relatively invisible. However, significant underreaction would represent a failure of the notification effort. As I read this legislation, the point is not just to engage in transferring information to workers as an end in itself. Rather, the point is to transfer information in a way that results in constructive responses from the notified workers -- responses that can prevent disease through early detection and medical treatment where that is possible; guide the victim to appropriate services where disease cannot be prevented; reduce future exposures to other workers through pressure to change hazardous working conditions; and achieve just compensation for the health damage done. Notification is simply a means to accomplish those ends.

To minimize the twin dangers of overreaction and underreaction, social science research suggests several things that might help.

First, the affected workers should have direct access to an authoritative information source, such as a government sponsored telephone hot line. The information resources described in Section 5 of the present draft do not assure that workers will actually get their questions answered. A hot line to give technical information to their personal physicians as specified in section 5(c) is an excellent idea, since most physicians have little training in occupational health. However, that mechanism is too indirect to allay anxiety among the workers themselves. Many of them will not have personal physicians. Many will not go to their doctors. If they do go, they may not ask the questions that are on their minds, particularly if the questions are non-medical in nature or if the physician is their company doctor. Even if a conscientious physician does seek out the information the worker needs, he or she may feel, as many doctors do, that patients should be shielded from certain kinds of knowledge. It is the notified worker whose psychological reaction we are concerned about, not the worker's physician. Therefore, insofar as access to information can reduce anxiety, provision for a hot line directly serving the workers should be added.

In any case, it's very likely that workers, seeing the physician's hot line telephone number in the notification materials as provided in section 5(b), will use it as a direct line for their own questions anyway. If they do, they may be told brusquely, "This line is for doctors only; consult your physician." This is the worst thing that could happen to the caller emotionally. We know from research on human reactions to natural disasters and other forms of stress that a sense of control is a critical factor in avoiding demoralization. Forcing the notified workers into a passive role in the face of perceived danger is almost certain to produce undesirable psychological reactions.

The importance of this seemingly small modification cannot be emphasized enough. I would say that having a very convenient, very inviting, very sympathetic information source that the worker can turn to anonymously, such as a confidential hot line staffed by appropriately trained counselors, is probably the most important followup support this program could provide. The worker's psychological reaction to notification will be hanging in the balance during the period immediately following receipt of the written notice. It will be very much affected by the first human contacts that the worker makes concerning the issue. If these contacts are with uninformed or insensitive sources, adverse psychological effects -- either overreaction or underreaction -- are much more likely to result. Once set these negative reactions will be difficult to change. Moreover, the workers most likely to call will be the opinion leaders of their occupational group. The treatment and information they receive on the hot line will have a multiplier effect, as they influence co-workers who did not call in. Thus this one small service element could determine whether large groups of workers decide to seek medical followup or not, whether they develop severe anxiety, whether they decide to simply throw away the written notification -- in effect, the success of the whole program.

The worker information service could be set up as a centralized 800 number, possibly supplemented by contracted telephone information services at the regional and local level. In any case, the hot line staff should have not only the necessary factual information, but also the kind of crisis intervention skills used in suicide prevention and child abuse prevention hot lines. They should be able to deal supportively with callers who are upset and callers who have trouble articulating their questions. They should be able to suggest ways in which the caller can find services and supports in his or her local community. I would strongly recommend that qualified social workers trained in occupational health be involved in designing and delivering this service.

Second, workers in the "high risk" and "increased risk" categories should receive the same types of information and service. At present, in Section 4(b)(3) and 4(b)(4), the bill seems to propose a difference in the treatment of these two categories. I understand, I think, the reasoning behind making the distinction between risk levels for large occupational groups. I have recently served on a task force designing a notification and screening program for municipal workers in Philadelphia at risk for asbestos related disease. We struggled over the same issue -- how, using job titles, to warn a large population of their elevated health risk while concentrating scarce services resources in the subpopulation with highest need. But we found, as I think the sponsors of this bill will find, that there is a great deal of individual variability of exposure within occupational categories, and that workers want individualized assessment. Once notified, individual workers are not going to be reassured by the fact that the health risk for their occupational category is only "increased" and not "high." For all workers warned, you have to provide complete information on followup services, along with guidance on how to find out what kind of followup is appropriate in individual cases.

Third, two items need to be added to the "contents of notification" listed in Section 5(a). These are (1) information about the Act's protections concerning job discrimination, and (2) information about the insurance coverage for medical screening. As the bill is presently written, the notified workers have no way of knowing about these protections until they seek additional information, available (theoretically) through their physicians. Yet the concerns most likely to deter them from contacting their physicians in the first place are exactly these two -- fear of company retaliation and fear of medical expense. It's an unnecessary Catch-22. Why not go as far as possible in removing barriers to constructive responses on the part of workers? This can best be accomplished by addressing two of their major concerns in the notification itself, since the written notice may for some be the only information on which response decisions are based.

Fourth, some attempt should be made to enlist the support of local organizations and individuals likely to serve as opinion mediators and alternative information sources to the notified workers. Section 5(d) as presently written leaves the Secretary wide discretion in the manner of worker education, but seems biased toward phamplets and other written material aimed at the workers as isolated individuals. There is good reason to believe that the value of such written material will be minimal if not reinforced by the groups and individuals that workers are used to consulting. The exact nature of these "significant others" will differ for workers of different social and cultural backgrounds, but they are not that hard to identify. Rather than leaving this section of the bill so openended, I would like to see some language added that specifically encourages the use of local community resources for worker education, such as unions, COSH groups, local professional schools and organizations, churches, public health departments, and state agencies.

Social Consequences of Notification

One of the great strengths of this proposed legislation is its sensitivity to the fact that notification can have adverse effects socially, as well as psychologically. The bill includes provisions aimed at protecting the notified workers' job security, insurance coverage, and compensation rights. My concern is that these protections as presently written may leave some gaps in worker protection. Without necessarily having answers, I would like to raise some questions that should be considered before the bill goes forward.

First, can the protections against discrimination be made more affirmative, so that they deter as well as punish this negative consequence of notification? Like much legislation, these protections are grievance driven. That is, they specify recourse and penalties after an act of discrimination has been committed. How could they be used to prevent discrimination in the first place? I would suggest that one way is to send a separate notification to the notified workers' present employer and union (if there is one), outlining the anti-discrimination features of the program. As it is, employers and unions presumably have to rely on media reports or experience to learn that the notified workers are protected. If they learned about these provisions as part of the notification effort itself, in advance of any opportunity for discriminatory practices, the protection would be more complete. As mentioned earlier, the workers should also be informed of these provisions in the original notification letter. The hot line and local community supports already discussed would serve to reinforce their understanding of these rights.

Second, what about types of discrimination not mentioned in the bill? Those publicly identified as being at risk from disease, even though presently healthy, sometimes find it hard to obtain credit. As renters and home buyers, they can face housing discrimination. We know this happens from the experience of such groups as recovered cancer victims. I would suggest that some thought be given to extending the anti-discrimination protections of this bill to include at least these two additional areas.

One way to prevent discrimination, of course, is to make it as difficult as possible for potential discriminators to identify the notified workers. A provision protecting the confidentiality of mailing lists used for notification of individual workers should be added to Section 5(a). Section 6(a)(2), which requires ethical practice as a criterion for clinic certification, protects the confidentiality of medical screening and treatment information in certified clinics only.

Third, on the issue of workers' compensation, are the protections as written really adequate? Section 8(e) states that the notification and subsequent medical evaluation and monitoring shall not toll any statute of liminations with respect to workers' compensation claims, "except as may be specifically provided by law under a workers' compensation statute." The problem is, that last phrase opens a very wide loophole. In many states, by law, the statute of limitations clock for workers' compensation starts ticking the minute that evidence of occupational disease is found and/or communicated to the patient. Workers might conscientiously go for medical followup to notification, learn that they have occupational disease in its early stages, assume that the program protects their workers' compensation rights because of the generally strong language in section 8(e), and then after all lose compensation eligibility by failing to make a timely claim. We know, unfortunately, that physicians do not routinely advise patients on workers' compensation eligibility. The solution may lie in putting an alert to the worker in the original notification letter, to the effect that if any occupational disease is found in the medical followup, the worker should seek advice on the workers' compensation laws of his or her state. Here is another area where the worker hot line and local community supports could be crucial in averting negative social consequences from notification.

One other question that arises is whether continuing to work in a hazardous occupation after notification of the health risk could be construed legally as informed consent to undertake the risk. It might be a good idea to seek legal opinion on this, in case additional language is needed in Section 8 to prevent harm to workers' legal rights.

Access to Human Services Following Notification

On the issue of service facilities, I would like to applaud the bill's plan for establishing a nationwide network of occupational and environmental health centers, evenly distributed regionally, with capability for comprehensive services. This plan is a major step forward in occupational health, since access to appropriate services has often been a problem for occupational disease victims.

Section 6(b)'s inclusion of family services as part of the centers' capability is particularly important, and should be retained in the bill at all costs. Despite some debate in the literature, there is strong support for the idea that counseling can help medically, particularly in the early stages of disease. A recent article in The Lancet, a respected medical journal, summarizes some of the clinical evidence of a link between emotion and immunity, and concludes that "counselling in the acute phase of disease and psychological support in the chronic may be as important to outcome as many other therapeutic measures now undertaken." Counselling will be especially significant for those high risk workers who discover they have occupational diseases which are medically incurable.

Building social services into the occupational health clinic's capabilities has value going well beyond the direct medical effects. Social service professionals are needed to deal with the non-medical impacts of occupational disease -- unemployment, family strain, financial problems, social isolation -- which have a great deal to do with mental health and quality of life for patients and their families. The social service staff can free up time for the clinic's medical staff by taking the load of some unavoidable non-medical patient services, such as patient education, benefits information, and referrals to community service and information resources. They are also a logical resource for providing research, community education and outreach services aimed at the primary prevention of occupational disease.

At present, there are approximately 60 occupational health clinics in the nation, some of them quite small, most of them badly in need of increased resources. As part of a research project for the Occupational Health Section of the American Public Health Association, I am presently conducting a survey of service capabilities among these clinics, with particular focus on social services. My results are not yet complete, but I can tell you that only a handful of existing clinics are presently able to offer family services as provided for in Section 6(b). To meet this part of the certification requirements, practically every clinic applying would have to add staff. Some special provision for this should be made in the bill, so that this extremely important service element does not get lost.

The bill provides in Section 6(a) that the certifiable clinics be selected from the educational resource centers of NIOSH and the National Institute for Environmental Health Sciences, later to be supplemented with selections from other existing health care facilities. This may not be the most logical approach, since some of the nation's leading occupational and environmental clinics are not presently designated as ERC's. Two alternative possibilities would be to include in the initial selection pool the 16 occupational health facilities currently in the National Cancer Institute's clinic network, or the approximately 30 occupational health facilities associated with the American Public Health Association's clinic network.

Professional Manpower Training and Research

Appropriately trained professional manpower has long been cited as a limiting factor in the field of occupational health. At present occupational health still occupies a very minor place in medical education. In professional social work, training in occupational and environmental health is beginning to become available through special programs such as the one I direct at Bryn Mawr College, but it is not normally part of routine social work education.

The notification program created by this bill will mean an expansion, potentially a large one, in the need for professional research and service personnel. At present, the trained manpower resources are simply not sufficient. I urge the committee to address this issue, if not through this bill then through a companion bill or some other mechanism.

Funding Consideration

I'd like to offer a few thoughts on funding of this legislation. At a time when domestic spending is facing major, agonizing cuts in order to reduce the federal budget deficit, the chances for new appropriations as provided in section 9 seem very slim. Since the point is to get this bill not only passed but also implemented, some creative thinking on alternative approaches to funding might be in order. This is an area where I'm sure the Committee has considerable expertise of its own, but I would like to suggest two ideas. First, what about a special business tax on producers in those occupational categories with high proportions of "high risk" and "increased risk" workers, along the lines of Superfund? I'm aware that this approach has its weaknesses, but in the present budgetary crisis it might be more realistic than direct appropriation. Second, since at best the appropriations for this program are likely to be smaller than the ideal, building in some funding mechanisms with a multiplier effect are probably a good idea. Some possibilities might be: matching grants to states; technical assistance for the development of state and local notification efforts; using small grants to mobilize volunteer resources through local organizations, such as COSH groups, unions, existing occupational health clinics, and other worker service programs; training grants to professional schools, which could provide occupational health research and service in the process of training students.

Conclusion

To summarize my recommendations, I have suggested the following modifications to the bill:

Section 5(c): Add a telephone hot line to be used for worker information and counseling, staffed by trained professionals, with the number prominently featured in the notification letter.

Section 5(a): Include in the contents of notification some information about the protections against employment and insurance discrimination.

Section 5(a): Include in the contents of notification an alert to workers about the importance of getting information on the timing of workers' compensation claims, under the particular state law that applies to them.

Section 5(a): Add a provision protecting the confidentiality of the mailing lists used to notify individual workers.

Section 5: Add a provision for separate notification to employers and unions of the notified workers, describing the program's antidiscrimination provisions.

Section 4(b)(3)&(4): Eliminate the exclusion of "increased risk" workers from services and information available to "high risk" workers.

Section 5(d): Add language encouraging use of local organizations as resources for worker education.

Section 6(d): Add a provision that would support addition of social service professionals to the staff of clinics applying for certification, since so few clinics can presently meet the family service requirement of 6(b).

Section 6(a)(1): Consider alternative approaches (such as use of the NCI or APHA clinic networks) for identifying candidates for certification as occupational and environmental health centers.

Section 9: Consider some alternatives to direct federal spending of general revenue as mechanisms for funding the program.

Generally, consider the need for training grants to meet the professional manpower requirements of this program, particularly in fields such as social work where such training is underdeveloped.

Thank you again for giving me the opportunity to comment on this bill. I would be happy to answer questions.

Mr. **Gaydos**. Thank you very much, Doctor.

Also, I would like to comment on your funding consideration, which I find very interesting, where you suggest about maybe the business tax or some other type of an approach to it.

Mr. Hayes?

Mr. **Hayes**. I just want to welcome aboard—I know this is redundant—your support of the good doctor, who seems to be very well conversant with the problem that we are discussing in this bill.

Maybe one thing that does disturb me, as my good chairman said, we have to be very diverse here in Congress. We cover a lot of issues. In this day and time, as you might well expect, every legislative move, either anticipated or made, is weighed against the backdrop of what it is going to cost.

What is it going to do with the huge deficit that we have? And now, I know we talked about legislation here, I guess it would mean that we would finance through the efforts of the employers.

Yet, we are facing a situation today where even doctors themselves are—I have had some come to my office who are being threatened with having to leave the profession, because of the insurance policies they have to pay.

Somewhere along the line, I think, Mr. Chairman, we may have to look into this in some other committees in Congress, because the high risk insurance rates which may be subject to suits on the part of patients, that could be so high, that you could get some nervousness and some concern out there among the professionals themselves.

So, we have to look at this piece of legislation against what it is going to cost the Government, and you have got an employer, and some of them I think are so ruthless—I don't mind saying it, you don't have to share my opinion—that they think of costs first and human life second.

And this, I think, is very tragic, but this is a problem. We have had them here before this committee to play down, to some extent, I think, the seriousness of the situation as it reflects on occupational diseases and hazards.

And I do hope that we can maybe change the thing around, and I certainly appreciate your support, but keep in mind that the battle to pass this legislation is not going to be easy. Any support that you can give us, people like you, who understand, know what the problem is, is very much appreciated.

Ms. **Needleman**. I might just want to say, for the record, that my prepared testimony does include some discussion of funding, as you pointed out. And you may want to consider some alternative mechanisms besides direct appropriation, because in the present climate, you know, we all know that is a problem.

There might be ways to multiply the impact of whatever funding is forthcoming through matching grants or grants to organizations which are able to mobilize local volunteer resources.

And I have suggested some of that in my statement.

Mr. **Gaydos**. Thank you very much, Mr. Hayes.

Mr. Murphy is the chairman of the Subcommittee on Labor Standards—both subcommittees are handling this bill, it is a joint referral. So, Mr. Murphy is here as the chairman of the other subcommittee.

Mr. Murphy.

Mr. MURPHY. Thank you, Mr. Chairman.

Just to follow up on what Congressman Hayes said, Doctor, we do have a problem with funding here in the Federal Government. Is there any possibility of your conveying, and we could perhaps assist you, the need for the training of social consultants in the educational fields that now exist.

We are graduating social workers from colleges and specializing in sociology in some high schools. Perhaps we could carry that message into the educational community and prepare some of these young people in their studies, rather than setting up a job training program.

It is very difficult anymore to set up job training even for the unemployed in center cities or rural areas. We are struggling to find the dollars for that and the philosophy for it. We seem to have lost both.

So, maybe you ~~could~~ assist us and we could assist you in conveying that message to the educational community, if that structure already exists for that type training.

Ms. NEEDLEMAN. This may be an area where we really could mutually aid each other, because I think there is quite a bit of interest in the professional education community to providing this training.

It is an area of professional expertise that has not traditionally been included in the scope of training efforts, for instance, through NIOSH, which has been more medically oriented, and I think perhaps some support on your part to legitimating this as part of existing training grant programs would be helpful.

And that would be matched by efforts on our part to try to encourage this in schools of social work.

Mr. MURPHY. ~~Fine.~~ Thank you.

Thank you, Mr. Chairman. The bells have taken our time.

Mr. GAYDOS. OK, thank you.

I am going to stay, so if you gentlemen would try to get back, if you can, you ought to go and vote.

Thank you, Doctor. I also want to comment on the fact that you do refer to the Philadelphia notification program, which I find interesting, and I think it will be most important for those that read the record later, most important.

Thank you so much.

Professor Ashford, do you want to proceed in a manner that would best satisfy yourself?

Mr. ASHFORD. Yes, thank you very much. I have intended, and have been invited to testify on this bill as an individual concerned with this area, and the American Public Health Association asked me if I would represent them as well, and I found our views essentially consonant, and so I am pleased to do both.

By way of introduction, let me tell you that I am both a chemist and a lawyer, and since this bill essentially deals with the legal control of exposure to toxic materials, I feel that I might be particularly helpful to you in fashioning the legislative remedy to the problems you have so well identified.

At MIT, I teach occupational health law and environmental law. I have a great deal of experience in assisting Congress in drafting legislation of this type, and expert in regulatory analysis and worker discrimination issues.

I am the prior chairman of the National Advisory Committee on Occupational Safety and Health, which, as you know, advises NIOSH and DOL on these issues.

I state this background not to impress you, but to indicate in a way of apology that I wish to touch some very specific points in my testimony, if you will bear with me.

With that, we will arm you with the arguments which might be presented in future testimony against an expanded reach of the bill. I think the bill is good as it is, I think it could be improved, and I want to cite on this point, but I want to present you with the intellectual armament to counter the arguments against those expansions which you will hear in the hearings to come.

So, if you will bear with me, it will not be an academic discussion, but will be a point by point discussion of crucial issues which I think you will want to deal with.

The bill, as presently drafted, focuses on four important activities.

One is intended to advance occupational health. One is to characterize the worker populations at risk, and it is worker populations that this bill goes to.

Secondly, to establish a Federal program for notifying and counseling those workers.

Third, to improve the outreach and effectiveness of occupational and environmental health facilities, and finally, to protect workers from discriminatory action.

The proposed legislation, as I said, is a good start, but I believe additional considerations may be advisable to effectuate better the general intent of the bill.

On the issue of the workers that you are going to be characterizing. In thoughtful work which I commend to your attention, Paul Schulte, Knute Ringgen and others have noted the important distinction between workers who are members of a population of workers at high or increased risk, and workers who are individually at high or increased risk.

These are not the same concepts. Populations at risk and individual workers at risk are different concepts. The distinction is important.

Medical examinations may reveal individual workers with occupational disease like brown lung or asbestosis, who do not constitute a large enough number to draw a statistically significant conclusion that the populations of workers are at risk.

In other words, it may not be enough in number to save the populations at risk, but you know those individual workers are, in fact, sick.

On the other hand, certain kinds of monitoring like genetic monitoring of worker populations may reveal a statistically significant number of workers with chromosomal damage.

But because that damage can be caused by non-occupational factors, and because the extent of damage may be person-specific, peculiar to the person, it is not yet scientifically determined what an individual's risk really is, although the conclusion that the population of workers at higher risk is warranted.

But the proposed legislation as drafted does not adequately address the issue of individual risk; that is, those workers that might be discovered to be ill in nonstatistically significant studies, or as a result of medical examination.

Yet, there is, in fact, an industry right now, a great activity in clinical and laboratory techniques for human monitoring. Some of it is called genetic screening, some of it is genetic monitoring, some of it medical surveillance, which focuses on protection of individuals, individuals at risk.

The motivation is to protect the worker by plucking him out of the workplace and saving him for himself. But the development of these tests for human monitoring are in a great state of infancy. Most of them are not reliable.

Yet they may be used by employers, particularly, to discriminate against individual workers. You show a spot on the lung X-ray, you are pulled out of the workplace, you don't have a job.

This bill does not address those issues. There is a need to notify those workers who are subjected to those kinds of tests, although epidemiological studies which the bill focuses on, and to prevent discrimination against them as well as to address the needs of the subjects of the group studies under epidemiology.

Now, if we are to protect the subjects of epidemiological studies, and I believe we should, we also must recognize that we need to strengthen the Federal Government's hand in conducting these studies in worker populations.

According to current interpretations of law, under the Borrows Decision, under the OSHA Act, OSHA may be required to secure a search warrant, a court warrant, before entering the workplace for inspection purposes.

Though not tested, NIOSH may be presumably under the same requirement. In conducting epidemiological studies envisioned in the bill, NIOSH has skirted the issue by agreeing in a number of court-supervised compromises to keep confidential the name of individual workers who are studied.

Further, in practice generally, NIOSH has not informed individual workers of the results of these studies. Now, because employer resistance would probably be increased, and because employer cooperation with these studies would be difficult to obtain, NIOSH has been placed in a difficult ethical position.

They want to do the studies, and in order to do them freely, they have to sort of agree not to tell people, unless there are really bad problems.

The proposed legislation requires NIOSH and other Federal agencies to notify the worker. It should also then clearly express the intent of Congress that these agencies are to be given free entry to industrial workplaces, without the necessity of obtaining a warrant or giving a tacit or implicit promise not to notify the workers about the results.

Otherwise, employers are unlikely to cooperate with the NIOSH, CDC or Centers for Disease Statistics investigations. You must take great care to remove the investigating agency from the horns of the dilemma and between a rock and a hard place.

You have got to say to the employer, "You have got to let these people in, and they are going to notify workers, and that is the law."

Now, making decisions on how and when to notify workers presents difficult legal and ethical questions. How good does the data have to be before you overly alarm a worker?

For this reason, it is crucial that the legislation provide procedural and institutional safeguards of fairness. Medical monitoring can serve not only to detect individuals and populations at risk, it can also provide intervention strategies that prevent or reverse or arrest or merely treat in a humane way occupational disease and injury, including counseling.

Legal and ethical concerns are different for these different cases, and they require a great deal of sophistication for their resolution.

The justification in the legislation for a distinction between workers at increased risk as opposed to high risk is not well-founded on public health principles. Like the former witness, I urge you not to make this distinction.

In many cases, disease states are more reversible or arrestable at the earlier rather than later stages of development. When health status is deteriorating, that is a time for intervention, not just when the disease becomes serious.

To give you an example from public health, if you wait until you are really hypertensive, you may not be able to reverse heart disease. It is when your hypertension is on the increase but not yet so-called serious that you may be able to make a payoff.

A statistical distinction drawn in the bill between increased and high-risk workers is arbitrary, as it is reflected in the definitions in the legislation, and I urge you not to follow that distinction.

On another point, the guidance given to and the role of the Risk Assessment Board must be carefully reconsidered. The legislation should require a minimum number of meetings, provide an adequate operating budget, and provide congressional oversight. It is silent on these issues.

In my view, NAPHA is still grappling with the policy recommendation. It might be preferable to have the appointments made, not by the Surgeon General, but by the Secretary, because the former, in practical terms, is more accountable to the Congress.

He appears more often than the Surgeon General before these committees.

The Secretary should not be able to depart from the recommendations of the Board without publishing the reasons for departure in the Federal Register. The present bill, as constituted, just allows the Secretary to negate without explanation the recommendations of the Board.

With the requirements restructured, public servants will be held accountable in a way which checks abuse and ensures decisions in the sunshine—I think you will all recognize the recent history in environmental requirement—environmental legislation really requires that we do these things in the sunshine.

This act or explained requirement imposed on the Secretary, incidentally, parallels a similar requirement placed on the Administrator of EPA in implementing the Toxic Substances Control Act. It seems to be a prudent citizen safeguard.

Now, in addition to the top priority being accorded substances for which standards have been set under section 65, the OSHA Act, special attention ought to be placed in two other places:

One is the 450 TLV's adopted under section 6(a), the so-called ACGIH standards, to which OSHA standards completion project appended voluntary guidelines for medical monitoring. They are all in site, but they are voluntary.

In addition, substances classified, though not yet regulated, as carcinogens under the OSHA Generic Carcinogen Standard should receive serious legislative attention for review by the Board.

Just because OSHA doesn't want to regulate carcinogens doesn't mean they are a problem—not a problem—and we should pay attention with regard to medical—every one of these substances, some 200 of them as class I examples of exposure.

Access of the Risk Assessment Board to employer or manufacturer information reported to EPA under section 8 of the Toxic Substances Control Act is particularly essential. The Toxic Substances Control Act is very important for worker protection, both the epidemiological studies and individual adverse health reactions are required to be reported under that law. They have to be reported, under severe penalty.

Now, what does EPA do with that? It keeps them. Workers need to be notified of those results. Although arguably reachable through the OSHA medical access regulation on request, if workers know to request it, Congress here in this bill should provide an affirmative notification requirement to the Secretary that he inform under section 5(d) and (e) of the proposed legislation the results of this EPA-held information. It is crucial information.

Finally, on the issue of worker discrimination, section 10 should require hearings at the regional level, unlike OSHA's discrimination hearings held only in Washington, so that complaints can be easily filed and adjudicated.

You have got to give people access to the system if you want it to work. Conclusions by the Secretary that workers are at increased or high risk should be explicitly admissible in OSHA and NLRB hearings to adjudicate workers' right to refuse hazardous work, which is necessary to protect themselves, or a discrimination complaint, adjudications filed under OSHA and other Federal laws.

You want to have this be an organic notification statute, not something which simply collects statistics.

The provision in the proposed legislation, section 7(b), to provide medical removal protection is laudable and necessary if protection from discrimination is to have any real meaning.

The Bingham OSHA was about to adopt a generic medical removal protection which would have insured workers this right. The changes in administration prohibited this kind of protection from emerging. We need workers to be protected against discrimination if this is to have any teeth to it.

I wish to congratulate the committee on a good start in meeting its important public health issues. I hope these constructive criticisms will help strengthen the legislative initiative.

I would also like permission to submit for the record references 1, 4, 5 and 7 of my prepared testimony, so that it might be of use in your subsequent consideration of the bill.

Thank you for your patience on this detailed commentary.

Mr. GAYDOS. Without objection, the addenda will be accepted as part of the formal record. Anything else you have, Professor, will be very welcomed as far as the committee is concerned.

[The prepared statement of Nicholas A. Ashford follows:]

[Additional material submitted by Mr. Ashford is retained in subcommittee files.]

PREPARED STATEMENT OF NICHOLAS A. ASHFORD, PH.D., J.D., ON BEHALF OF THE AMERICAN PUBLIC HEALTH ASSOCIATION

The Need for New Initiatives

Exposure of workers to toxic substances and harmful physical agents continues to be a serious primary cause of disease and injury in those workers and exacerbates disease and injury initiated by non-occupational factors. Research into the underlying mechanisms of occupational disease causation, epidemiologic studies of worker populations, and the appropriate use of human monitoring techniques such as medical surveillance and biological monitoring needs to be strengthened to meet the goals of an effective disease prevention effort on the part of federal and local government, as well as industry.

Fairness dictates that, in addition to being informed through federal and local right-to-know laws about the identity of toxic substances to which workers are exposed, workers also be informed about their health status. This includes both individually relevant information and information relevant to their membership in a class or population of workers at risk. This information is crucial if workers are to be able to take timely remedial medical action to protect their health, to exercize self-help actions to decrease harmful exposures, for example, through their legal right to refuse hazardous work[1], or to counter and discourage discriminatory actions on the part of employers and health care providers or insurers.

There is also a need to build up a cadre of professionals to monitor, treat and counsel workers at risk and to create or improve institutional facilities and capabilities for occupational disease prevention and treatment.

Finally, the issue of possible discrimination of workers exposed to harmful work environments or suffering from occupational disease and injury is a very real one. It is essential that better institutional and legal protections be afforded workers if they are not to fall victim to programs ostensibly fashioned to protect their health.

Discussion of H.R. 1309

H.R. 1309 focuses on four important activities intended to advance occupational health: (1) to characterize worker populations at risk, (2) to establish a federal program for notifying and counseling those workers, (3) to improve the outreach and effectiveness of occupational and environmental health facilities, and (4) to protect workers from discriminatory action. The proposed legislation is a good start, but additional considerations may be advisable to effectuate better the general intent of the bill.

In thoughtful work, which I commend to your attention, Paul Schulte *et al.*[2,3] have noted the important distinction between workers who are members of a *population* of workers at high or increased risk of disease, and workers who are *individually* at high or increased risk. The distinction is important. Medical examinations may reveal individual workers with occupational disease who do not constitute a large enough number (prevalence) to draw a statistically significant conclusion that the *population* of workers are at risk. Yet there is no doubt, on an individual basis, that the workers are diseased. In contrast, genetic monitoring of worker *populations* may reveal a statistically significant number of workers with chromosomal damage, but because that damage can be caused by non-occupational factors and because the extent of damage may be person-specific, it is not yet scientifically determinable what an *individual's* risk really is, although the conclusion that the *population* of workers is at higher risk is warranted.

The proposed legislation does not adequately address the issue of *individual* risk. Yet, there is great activity in clinical and laboratory techniques for human monitoring which focus on detection of *individuals* at risk. The development of tests for human monitoring are in a state of infancy.[4] Yet, they may be used to discriminate against individual workers.[4,5] There is a need to notify the workers who are subjected to these tests, though not epidemiologic studies, and to prevent discrimination against them, as well as to address the needs of the subjects of epidemiologic investigation.

If we are to protect the subjects of epidemiologic studies, and I believe we should, we also must recognize that we need to strengthen the federal government's hand in conducting these studies in worker populations. According to current interpretations of law, under the OSHAct OSHA may be required to secure a court warrant before entering a workplace for inspection purposes. Though not tested, NIOSH may presumably be under the same requirement. In conducting epidemiologic studies, NIOSH has skirted the issue by agreeing in a number of court-supervised compromises to keep confidential the names of individual workers who are studied.[6] Further, in practice, NIOSH has not informed individual workers of the results. Because employer resistance would probably increase, and because employer cooperation would be difficult to obtain, NIOSH has been placed in a difficult ethical position. The proposed legislation requires NIOSH and other federal agencies to notify workers. It should also clearly express the intent of Congress that these agencies are to be given free entry to industrial workplaces without the necessity of obtaining a warrant or giving a tacit or implicit promise not to notify the workers about the results. Otherwise, employers are unlikely to cooperate with a NIOSH, CDC, or Center for Disease Statistics investigation.

Making decisions on how and when to notify workers presents difficult legal and ethical questions.[2,4,5] For this reason, it is crucial that legislation provide procedural and institutional safeguards of fairness. Medical monitoring can serve not only to detect individuals and populations at high or increased risk, it can also provide intervention strategies that prevent, reverse, arrest or merely treat occupational disease and injury. Legal and ethical concerns are different for different cases.

The justification in the legislation for a distinction between workers at "increased" versus "high risk" is not well-founded on public health principles. In many cases, disease states are more reversible or arrestable at earlier, rather than later, stages of development. When health status is deteriorating, that is also a time for intervention--not just when the disease becomes "serious." A statistical distinction between increased and high risk workers is arbitrary as reflected in the definitions in the legislation.

The guidance given to and the role of the Risk Assessment Board must be carefully reconsidered. The legislation should require a minimum number of meetings, provide an adequate operating budget and provide for congressional oversight. It might be preferable to have the appointments made by the Secretary, rather than the Surgeon General, because the former is more accountable to the Congress.

The Secretary should not be able to depart from the recommendations of the Board without publishing the reasons for departure in the Federal Register. With these requirements, public servants will be held accountable in a way which checks abuse and ensures decisions in the sunshine. This "act or explain" requirement imposed on the Secretary parallels similar requirements placed on the Administrator of EPA in implementing the Toxic Substances Control Act. It seems to be a prudent citizen safeguard.

In addition to top priority being accorded substances for which standards have been set under Section 6(b)(5) of the OSHAct, special attention should be paid to the approximately 450 TLV's adopted under Section 6(a), to which OSHA's Standards Completion Project appended voluntary guidelines for medical monitoring. In addition, substances classified, though not yet regulated, as carcinogens under the OSHA Generic Carcinogen Standard should receive serious legislative direction for review by the Board.

Access of the Risk Assessment Board to employer or manufacturer information reported to EPA under Section 8 of TSCA is essential. Both epidemiologic studies and individual worker adverse health reactions are required to be reported.[7] Workers need to be notified of the results. Although arguably reachable through the OSHA Medical Access Regulation on request, Congress should provide an affirmative notification requirement on the Secretary in Section 5(d) and (e) of the proposed legislation.

Finally, on the issue of discrimination, Section 10 should require hearings at the regional level--unlike OSHA's discrimination hearings--so that complaints can be easily filed and adjudicated. Conclusions by the Secretary that workers are at increased or high risk should be explicitly admissible in OSHA and NLRB proceedings to adjudicate workers' right to refuse hazardous work or discrimination complaints filed under OSHA and other federal laws.

The provision in the proposed legislation, Section 7(b), to provide Medical Removal Protection is laudable and necessary if protection from discrimination is to have any real meaning.

I wish to congratulate the Committee on a good start in meeting its important public health goals. I hope these constructive criticisms will help strengthen the legislative initiative.

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Note: References 1, 4, 5 and 7 are submitted for the record.

Nicholas A. Ashford is Associate Professor of Technology and Policy at the Massachusetts Institute of Technology. He holds both a Ph.D. in chemistry and a law degree from the University of Chicago, where he received graduate training in economics.

Dr. Ashford is the author of a major work for the Ford Foundation, Crisis in the Workplace: Occupational Disease and Injury, published by the MIT Press. For several years he was a public member and chairman of the National Advisory Committee on Occupational Safety and Health, and also served on the EPA Science Advisory Board. Dr. Ashford was recently elected a fellow of the American Association for the Advancement of Science.

Dr. Ashford's research interests include regulatory law and economics, the design of government policies for encouraging both technological innovation, and improvements in health, safety and environmental quality, labor's participation in technological change and the role of information in the political process. He has developed methodologies for decision-making in the regulation of chemicals and has extensively investigated the effects of regulation on technological innovation in the chemical, pharmaceutical, and automobile industries.

Mr. GAYDOS. I want to commend you on a paper well written and well documented and good references. There are a couple of practical questions I want to ask you.

You mentioned on page 2 in your testimony that the proposed legislation does not adequately address the issue of individual risk. Yet, there is great activity in clinical and laboratory techniques for human monitoring.

I kind of have a tendency to agree with you, but how would you, as a practical matter, address the 100 million workers we have that may possibly come under the purview of this act?

I mean, I understand what you say, and I think you say it properly, but how do you practically approach that problem? Talking about a lot of people.

Mr. ASHFORD. If the employers or a regulatory agency undertake—if they find it in their interest to undertake a medical examination, and they are going to act, the employers are going to act, or the insurance carriers are going to act politically on that information, then the worker has a right to know.

If the employer holds the information, he should be made to give it, and if the insurance carriers hold the information, they should be required to give it, and if the Federal Government, who NIOSH does a health hazard evaluation and find workers with elevated blood lead levels, which they have to report under the OSHA standard, but in other standards they don't, look, if one party is going to use information, you have to provide the information to the other party. Fairness dictates it.

It is not a paperwork burden, it is a question of notification. The record is there. As far as costs, which I am very sensitive to, this doesn't impose costs, additional recording costs on anybody. It simply says you have got to notify, you have got to notify.

If you sent it to your insurance carrier, the employer sends it to the insurance carrier, he can send a copy to the worker, it doesn't cost anything.

Mr. GAYDOS. We talk about the definition of increased risk, high risk. When I mention that 100 million workers, of course, I don't presume that they would all be in a high-risk category.

But increased risk probably is a broad term. I think you take a good position when you say that it would be nice to get into the increased risk area as early as possible, because of course, a step in time saves nine, as the adage goes, but as a practical matter, how would we do it?

Mr. ASHFORD. Let me answer the question with a story, and that is, at the end of the Second World War, we had widespread use of asbestos. If you look—if people began to undertake medical examinations of workers in 1950–55, they would detect cases of mesothelioma and asbestos-caused cancer, as well as asbestosis.

Now, if you count the number of people in 1950 who had that disease, the number of people who had those diseases did not yet rise to statistical significance, because the disease didn't ripen yet. Selikoff wasn't able to demonstrate a statistical significance until many years later.

First, the ratio was 10 percent of the population. Then it was 20 percent, then it was 30 percent, then it was 40 percent. As time goes on, you move from increased risk to high risk in terms of those definitions, simply because the disease ripens.

Before you even reach the point of statistical significance on 10 percent in the population, you see a worker with mesothelioma. If a Federal agency finds that worker, damn it, he ought to tell the worker, and if an employer finds that, you can bet your life that he is looking at those statistics, he ought to tell the worker.

I mean, if we are to be a fair society, we cannot avoid that responsibility. Now, you can put those statistics and that finding in a way that puts it in perspective, because of other risks that the worker is taking, you don't—I agree with Dr. Needleman, I think this issue of panic and harm is largely a straw man.

I think that panic and harm comes when you discover a family member has a disease and you have no money to bury him, then you have panic and harm.

I mean, why is it we require for our own selves the information we deny others? That is the question that ought to be asked to the witnesses that oppose this bill.

Mr. GAYDOS. Well, if you had to make a choice, which one would you opt for? If limitations, funding, and stuff like that, they are all factors, and someone said, now, we are going to write a bill, we are going to have it passed, do you think it is going to be increased risk or high risk, would you take the committee's version as a start anyhow?

And then later on maybe develop something from experience?

Mr. ASHFORD. I think because both increased and high risk versions are focused on population studies, it is not—I would not be pleased to have it stop there. I think any discovery in that adverse medical condition, whether it is statistically significant or not, ought to be the subject of notification by the Federal agency that conducts those examinations.

Now, whether you—frankly, whether it is 30 percent or 100 percent increase, 100 percent means double the disease, I mean that is an enormous—you are going to wait until someone has twice the chance of getting cancer before you counsel him what to do?

I guess if I had to make a choice, I would sit with increased risk and not talk about this high risk business. Just take it out. But you have got to go further. When an individual worker is harmed, you have got to notify, or you are leaving out most of the data that is actually being accumulated by industry.

Industry is not doing epidemiological studies. Industry is examining individual workers, and is supposed to give that information to EPA. That is what I was trying to say. And EPA sits with it.

What this bill could do is say that the Secretary of HHS has got to inform the workers from that EPA data. These aren't trade secrets. These aren't secrets that workers ought to be denied. You see, no one has appreciated the link between the Toxic Substances Control Act and these other things. You have got to link them up. You got a powerful data accumulation requirement under TSCA, use it. It won't cost you a thing.

We are not talking a budget. Don't be intimidated by this question of cost on this issue. The data is already being collected. Just notify the worker.

Mr. GAYDOS. You make an interesting argument.

Mr. Hayes?

Mr. **Hayes**. Thank you, Mr. Chairman. I got here late. I am sorry I missed most of the testimony. I am just in the process of going over some of it. I heard the witness say that a worker's right to refuse hazardous work should be protected. Is that what you said?

Mr. **Ashford**. That is one of the things I did say, yes, sir.

Mr. **Hayes**. I agree with you.

Mr. **Ashford**. How is he going to know to refuse hazardous work unless he knows that he is sick?

Mr. **Hayes**. That is right.

Mr. **Ashford**. Unless he knows to what he is exposed. I mean, it is a meaningless right, unless you have got the information, and because you can get it, doesn't mean you are going to get it. Someone has got to tell you. It isn't that you have the right to ask for it. Right of access isn't the same as the duty to inform.

And this bill, quite rightly, touches on the duty to inform. Let's do it right. Let's not have a bill that goes a quarter of the way.

Mr. **Hayes**. The minute you refuse, you become insubordinate.

Mr. **Ashford**. Well, the Labor Act and the OSHA Act protect people, and I am sorry you weren't able to read it, but let me repeat that what I am arguing the bill actually ought to say is how to make the determinations that a worker is at increased risk admissible in the proceedings to defend right to refuse hazardous work complaints, so that the worker will not be intimidated, and so that the Secretary's determination that from a medical perspective, from a public policy perspective, he is at increased risk, and that gives him a right to refuse hazardous work. It would be very powerful——

Mr. **Hayes**. I am not disagreeing——

Mr. **Ashford**. I know.

Mr. **Hayes**. I just want to make sure that we protect the workers.

Mr. **Ashford**. I think we need to protect the workers, and sometimes they need to protect themselves if government won't.

Mr. **Hayes**. No problem. Thank you.

Mr. **Gaydos**. Do you have any information on what we are trying to do in this bill as compared to what has already been accomplished in other jurisdictions and other nations? Professor, would you have any information there?

Mr. **Ashford**. Well, I think that from a governmental perspective, we ought to be ashamed of ourselves, because in the foreign jurisdictions, Sweden, Germany, France, and in Italy, workers have a right to be notified of these hazards and are notified of these hazards.

And in a society that prides itself on freedom for the press, we do a remarkable amount of keeping information private from citizens. And the Freedom of Information Act isn't a way to extract this information, the notification requirement is.

The other jurisdictions, both through the union activity and the public consciousness, provide a lot more information. We don't have tort suits abounding in Germany and Sweden. Why do you think these places aren't going to the courts to sue their employers?

Because the information is out there, and because employers are doing more to avoid the obvious cases of wholesale exposure to substances like asbestos, which is an historical outrage, as far as this country is concerned.

You know, there are a lot of ways to skin a cat, but information is crucial. If you can't have regulation in these, at least you can provide people with the knowledge that what is happening to them, let them take it on their own shoulders, if that is what need be.

Mr. **Gaydos**. It would be most helpful to the committee, if you have information along those lines, if you would attach that to the other information.

Mr. **Ashford**. Fine. I will see if I can provide that.

Mr. **Gaydos**. If you have it available.

Any other questions, Mr. Hayes?

Mr. **Hayes**. No.

Mr. **Gaydos**. There being none, let me commend both of you individuals on a well-documented presentation, and one that I am sure is going to demand a lot of attention from our colleagues, and I am sure it will be thoroughly read, because in the progress of this legislation, we are going to have to have argumentation that is well-founded, logical and hopefully on point.

And I think you have both done that.

Mr. **Ashford**. Thank you for the opportunity.

Mr. **Gaydos**. Thank you so much. Anything else you want to put on record? Thank you so much for your appearance, and if you have any other information you think would be valuable to the committee, please don't hesitate to send it in.

Mr. **Ashford**. Thank you very much.

Ms. **Needleman**. Thank you.

Mr. **Gaydos**. Thank you. Ms. Abrams, representing the Public Citizen Health Research Group. Ms. Abrams, do you want to proceed in the manner best suited to your purposes under the circumstances.

STATEMENT OF LORI ABRAMS, M. PHIL., PUBLIC CITIZEN HEALTH RESEARCH GROUP

Ms. **Abrams**. OK, thank you.

First, I would just like to say that we appreciate this opportunity to present our views on H.R. 1309. We applaud the introduction of this bill, which recognizes that workers have a basic and a fundamental right to know that they are exposed to an occupational hazard and are at risk of developing an occupational disease.

In January 1985, the Health Research Group released a list of 253 work sites where studies by the National Institute for Occupational Safety and Health have determined that over 200,000 workers are at potentially increased risk of cancer, respiratory disease and other serious work-related illnesses.

HRG also publicized the fact that NIOSH had not individually notified all of these workers that they are at increased risk, even though scientists and doctors at NIOSH advocate such notification, because NIOSH has been unable to obtain the necessary funding under the Reagan administration.

We are submitting for the record a copy of this report, a response from James O. Mason, Acting Assistant Secretary for Health, and our rebuttal to Mason's allegations concerning our report, and the need to notify or not notify workers.

Despite protests to the contrary from industry and from the Department of Health and Human Services, it is very clear from materials that we have received under the Freedom of Information Act that NIOSH believes that over 200,000 individual workers are at potentially high risk of occupational disease and should be individually notified.

NIOSH classified all the studies listed in our report into one of three categories, category A, studies in which participants could gain direct medical or health benefits from notification; category B, studies in which participants are potentially at high risk and should be notified, but there are no known effective intervention methods; and category C, studies in which individual participant notification would stimulate improvements in working conditions.

These characterizations are quoted directly from documents that we have received from NIOSH. They are not our descriptions. The wording of these categories leaves no room for doubt that NIOSH advocates individual notification, and believes that for at least 110,000 workers, such notification have direct health benefits as well.

In fact, NIOSH has repeatedly requested funding for individual worker notification, but has yet to receive any money for this project from HHS. Budget requests from NIOSH for $4.1 million for fiscal year 1985 and $9 million for fiscal year 1986 were turned down by the Reagan administration.

To date, NIOSH has received just $250,000 from its parent agency, the CDC, a mere fraction of what would be needed to conduct a full-scale notification program.

Mr. GAYDOS. Could I interrupt you there? That 250,000 figure, is that a pretty accurate figure?

Ms. ABRAMS. $250,000. That is a figure that I have gotten talking with people at NIOSH.

Mr. GAYDOS. No, I don't mean that. I mean the 200,000 workers in the high risk——

Ms. ABRAMS. The actual number, I think, is about 250,000.

Mr. GAYDOS. That is pretty accurate?

Ms. ABRAMS. Yes.

Mr. GAYDOS. OK.

I am sorry, go ahead.

Ms. ABRAMS. NIOSH also appears to support legislation to require individual worker notification. In a recent paper, Dr. Paul Schulte of NIOSH notes that "this issue goes beyond the epidemiologic community, because it reflects a societal situation that needs a societal solution. Such a solution might involve legislation that would mandate such action and provide compensation for those notified." So you also have support from NIOSH there.

Without mandatory notification, it is highly likely that many workers will not be informed of their increased risk. In most instances, the employer has strong financial disincentives to notify workers of hazards.

For example, a pilot notification project conducted by NIOSH a few years ago prompted $300 million in lawsuits against the company involved. In fact, NIOSH recognizes that its study results often do not reach a substantial portion of the population at risk.

In his recent paper, Dr. Paul Schulte of NIOSH also comments that, "Experience indicates that various occupational cohorts contain large number of subjects who may not learn of results because of their relocation, retirement or termination of employment."

While we therefore strongly support the underlying concepts of the bill that workers have a right and a need to know they face potentially risks of occupational disease as a result of their work, we also believe that there are areas of the bill that need further clarification.

First, the bill should focus on epidemiological studies conducted by NIOSH and other Federal agencies. As the bill is now written, it is not clear whether epidemiological study, and not necessarily just studies conducted by NIOSH, could trigger individual worker notification by the Government.

Although we do believe that any researcher, whether in Government, industry, or other affiliation, has an ethical obligation to individually notify workers of the study results, such a far-reaching bill is probably unworkable.

We just want to emphasize that we are not necessarily demanding that the bill exclude other studies from the purview of the bill; however, that the bill should concentrate on studies conducted by Government agencies, because the Government has this information at its fingertips, and NIOSH has names and addresses of the workers in its study, and therefore, can much more easily notify these workers so that they should be given first priority.

Second, the bill does not address the question of whether former employers—former employees or their surviving families should not notified. It is especially important to notify workers who have been previously exposed to this cancer and other serious occupational diseases, typically not developed for many years following initial exposure.

Families of deceased workers can and should be notified for ethical reasons, as well as for purposes of obtaining compensation.

Third, the composition of the Risk Assessment Board is presently limited to Government scientists. There should be some more open representation from external parties as well, to achieve a more well-balanced and positive scientific expertise.

Fourth, the section on occupational and environmental health centers is somewhat ambiguous. For example, who would pay for the services rendered? What is the relationship between certification and Government funding, if any?

Fifth, there has been some criticism of the bill's scheme for identifying workers who are at increased and high risk for the purposes of notification. We agree that more thought needs to be given to this crucial section of the bill.

We would like to bring the subcommittee's attention to a paper that was recently published by NIOSH which proposes criteria for notification. The paper attempts to provide a framework for minimizing false positive notification, while providing legitimate criteria for notifying at-risk workers.

While we do not endorse the NIOSH theme because it has some major shortcomings, we suggest that the subcommittee consider this kind of framework in formulating its notification criteria.

It may be that there are no clear-cut answers to this problem, and that some cases may have to be decided on a case-by-case basis.

However, we feel that the subcommittee should consult NIOSH and other expert agencies before any final decisions are made regarding this central issue.

Last, this issue has already been brought up, but we would like to emphasize the fact that to me, one of the major shortcomings of the bill is simply the absence of any provisions for funding.

Funding is so essential to effectuate this legislation, yet the subcommittee has failed to address this issue. As part of our written testimony, we have included a point-by-point response to some of the concerns that were raised by industry in the previous hearings on H.R. 1309.

HRG believes that most of these concerns are unfounded, and only underscores a need for legislation that mandates individual worker notification in the face of industry resistance to such a policy.

In closing, we would again like to express our strong support for H.R. 1309, and add that we would be very happy to assist the subcommittee in any way possible on this bill.

Thank you.

[The prepared statement of Dr. Sidney M. Wolfe and Lori Abrams follows:]

PREPARED STATEMENT OF SIDNEY M. WOLFE, M.D., AND LORI ABRAMS, M. PHIL., PUBLIC CITIZEN HEALTH RESEARCH GROUP

Mr. Chairman and Members of the Subcommittee:

Public Citizen Health Research Group (HRG) appreciates this opportunity to present its views on H.R. 1309, the High Risk Occupational Disease Notification and Prevention Act of 1985, to the Subcommittee. HRG applauds the introduction of this bill which would recognize that workers have a basic and fundamental right to know they are exposed to an occupational hazard and are at risk of developing an occupational disease. The bill would establish a federal program to notify individual workers within populations at risk of occupational disease that they are at increased risk.

HRG is a non-profit public interest organization that engages in research and advocacy on consumer and occupational health issues and has had a longstanding involvement with the worker right to know movement.

In January 1985, HRG released a list of 253 worksites where studies by the National Institute for Occupational Safety and Health (NIOSH), a federal agency, have determined that over 200,000 workers are at potentially increased risk of cancer, respiratory disease, and other serious work-related illnesses. HRG also publicized the fact that NIOSH had not individually notified all of these workers of their increased risk -- even though scientists and doctors at NIOSH advocated notification -- because NIOSH had been unable to obtain the necessary funding from the Reagan administration. We are submitting for the record a copy of this report, a response from James O. Mason, Acting Assistant Secretary for Health, and our rebuttal to Mason's allegations.

Despite protests to the contrary from industry and the Department of Health and Human Services, it is very clear from materials that we received under the Freedom of Information Act that NIOSH believes that over 200,000 workers are at potentially high risk of occupational disease and should be individually notified. NIOSH classified all of the studies listed in our report into one of three categories:

Category A:	(86 worksites, 110,005 workers) "Studies in which participants could gain direct medical/health benefits from notification."
Category B:	(136 worksites, 137,967 workers) "Studies in which participants are potentially at high risk and should be notified but there are no known effective intervention methods."
Category C:	(27 worksites, 6,508 workers) "Studies in which individual participant notification would stimulate improvements in working conditions."

In some cases, the fact that workers had been exposed to chemicals that were known to be dangerous (such as asbestos and PCBs) was sufficient for NIOSH to conclude that individual notification was warranted, regardless of whether the study had been completed or health problems had been detected at the time of the study. The wording of these categories leaves no room for doubt that NIOSH advocates individual notification of these workers and believes that for at least 110,000 workers such notification would have direct health benefits.

In fact, NIOSH has repeatedly requested funding for individual worker notification but has yet to receive any new money for this project from the Department of Health and Human Services. Budget requests from NIOSH for $4.1 million (spread over 5 years) for fiscal year 1985 and $9 million (spread over 6 years) for fiscal year 1986 were turned down by the Reagan administration. To date, NIOSH has received just $250,000 from its parent agency, the Centers for Disease Control (CDC) -- a mere fraction of what would be needed to conduct a full-scale notification program.

NIOSH's support for individual worker notification was recently reiterated in a paper published in the American Journal of Epidemiology. The author, Dr. Paul Schulte from the NIOSH Division of Surveillance, Hazard Evaluation and Field Studies (who presumably represents the views of NIOSH), prefaces the article by noting that

The fundamental premise of this commentary is that

> subjects of retrospective cohort mortality studies should be notified of results if the results contain risk information about them, and if that information is held by an investigator who is a member of an institution with public responsibility such as a government agency, corporation, university, or labor union.[1]

The Centers for Disease Control (CDC) has also stated that NIOSH has an ethical obligation to notify workers individually of their increased risk, either when NIOSH is the exclusive holder of the information or when there is clear evidence of a cause-effect relationship between the exposure and a health risk.[2]

NIOSH also appears to support legislation to require individual worker notification:

> this issue goes beyond the epidemiologic community because it reflects a societal situation that needs a societal solution. Such a solution might involve legislation that would mandate such action and provide compensation for those notified.[3]

We unconditionally agree with NIOSH that workers must be individually notified of their increased risks. In our January 1985 report we presented the example of a NIOSH pilot notification and screening project in Augusta, Georgia involving worker exposure to beta-naphthylamine (BNA) -- a known human bladder carcinogen -- at the Augusta Chemical Company. As a result of the pilot project, 13 out of 1,385 screened workers were found to have bladder cancer, and 36 additional workers had tests results that were highly suggestive of pre-cancerous changes of the bladder.[4] Because successful treatment of bladder cancer is much more likely when detected early, the results of this project were probably life-saving to a number of workers.

The pilot study also provided evidence that even workers exposed to serious and well-documented hazards can be unaware of the attendant dangers. At the Augusta Chemical Company, the statistics were quite striking:

- 42% of workers who were notified had never heard of BNA.

- 74 of workers were unaware that BNA is harmful.

- Of the 26% of workers who knew prior to notification that BNA is harmful, most had learned about this only after they had developed symptoms such as blood in their urine, often a sign of bladder cancer.[5]

These results aptly illustrate that individual worker notification cannot be left entirely to the employer's discretion. In most instances, the employer has strong financial disincentives to notify workers of such hazards. For example, this pilot project alone prompted $300 million in lawsuits against the company.

Without mandatory notification, it is highly likely that many workers will not be informed of their increased risk. In fact, NIOSH recognizes that its study results often do not reach a substantial portion of the population at risk. In his recent paper, Dr. Paul Schulte of NIOSH comments that

> experience indicates that various occupational cohorts contain large numbers of subjects who may not learn of results because of their relocation, retirement, or termination of employment.[6]

While we strongly support the underlying concepts of the bill -- that workers have a right and a need to know that they face potentially increased risks of occupational disease as a result of their work -- there are parts of the bill that need further clarification.

First, the bill should focus on epidemiological studies conducted by NIOSH and other government agencies. As the bill is now written, it is not clear whether any epidemiological study -- not necessarily just studies conducted by NIOSH -- could trigger individual worker notification by the government. Although we believe that any researcher -- whether in government, industry or other affiliation -- has an ethical obligation to individually notify workers of study results, such a far-reaching bill is probably unworkable.

Second, the bill does not address the question of whether former employers or their surviving families should be notified. It is especially important to notify workers who have been previously exposed because cancer and other serious occupational diseases typically do not develop for many years following initial exposure. Families of deceased workers can and should be notified for ethical reasons as well as for purposes of obtaining compensation.

Third, the composition of the Risk Assessment Board is presently limited to government scientists. There should be open representation from external parties as well to achieve a well-balanced composite of scientific expertise.

Fourth, the section on occupational and environmental health centers is somewhat ambiguous. Who would pay for the services rendered? What is the relationship between certification and government funding, if any?

Fifth, there has been some criticism of H.R. 1309's scheme for identifying workers who are at "increased" and "high" risk for the purposes of notification. We agree that more thought needs to be given to this crucial section of the bill. We would like to bring the Subcommittee's attention to a paper recently published by NIOSH which proposes criteria for notification.[7] The paper attempts to provide a framework for minimizing false positive notifications while providing legitimate criteria for notifying at-risk workers. While we do not endorse the NIOSH scheme because it has some major shortcomings (for example, it dismisses out-of-hand studies with a p-value of less than 0.05 and uses arbitrary SMR cut-offs to determine whether notification should take place), we suggest that the Subcommittee consider this kind of framework in formulating its notification criteria. The Subcommittee should consult with NIOSH and other expert agencies before any final decisions are made regarding this central issue.

Lastly, the major shortcoming of the bill is the absence of any provisions for funding. Funding is essential to effectuate this legislation, yet the Subcommittee has failed to address this issue.

Now we would like to respond to some of the concerns that were raised by industry in the previous October 9 hearing on H.R. 1309. HRG believes that most these concerns are unfounded and only underscore the need for legislation that mandates individual worker notification in the face of industry resistance to any such policy.

Industry Concern #1 Worker notification legislation is not needed, and in fact would be duplicative, because the Hazard Communication Standard and Access Standard are effective vehicles for communicating risks to workers. Workers are already trained to recognize hazards and handle toxic substances via employer training programs and are additionally informed through MSHA and OSHA enforcement activities.

HRG Response: In the first place, the Hazard Communication Standard is limited in its ability to communicate hazards to workers because only a limited number of substances and workers are presently covered. The standard covers approximately 2,000 of the over 60,000 chemicals currently in commercial use and applies only to workers in the manufacturing sector. Moreover, OSHA's ability to check every Material Safety Data Sheet (MSDS) for accurate hazard information is questionable. Jennifer Silk, a member of OSHA's Health Standards staff, conceded in a recent interview that tracing the source of inadequate data sheets and the sheer number of data sheets generated by the standard will pose a major enforcement problem for OSHA.[8] The Access Standard only requires employers to disclose records that they currently maintain, and does not mandate recordkeeping for specific chemicals.

Most importantly, communication of potential hazard information to employees is not tantamount to notifying workers that they, as a group, are at increased risk. The distinction is one of potential versus actual risk. The latter is of much more personal interest to the worker.

* * *

Industry Concern #2 The financial costs of worker notification legislation would be staggering to the government and employers.

HRG Response: The financial costs of not notifying workers are staggering. However, the government, the public (through social security disability benefits and public assistance, Medicare and Medicaid), and individual employees -- not industry -- currently bear the major brunt of the costs of occupational disease. OSHA has estimated that $11.4 billion in (gross) earnings were lost in 1978 due to disabling occupational related diseases. OSHA acknowledged that "[t]his is a conservative estimate of the annual costs associated with occupational disease" which does not include deaths due to occupational disease and does not take into account value costs to the individual of pain and suffering and other intangibles, medical costs, and for firms, excess absenteeism, higher workers' compensation premiums, worker turnover, and reduced productivity.[9] Earlier notification can facilitate early diagnosis and treatment and provide increased motivation for workers to use personal protective devices, improved work practices, and other precautionary measures when handling hazardous substances.

* * *

Industry Concern #3 NIOSH is appropriately exercising its authority and already takes steps to inform workers of its study results.

HRG Response: NIOSH routinely disseminates the results of its studies to companies, relevant unions or employee representatives, and government agencies and generally publishes its findings in the scientific literature. However, NIOSH does not routinely notify individual workers of its study results, and therefore cannot possibly reach every worker who is potentially at high risk, especially non-unionized workers and those who have relocated, retired, or terminated their employment.

* * *

Industry Concern #4 Industry is very concerned about the health and safety of workers and already makes a great effort to identify, control, and eliminate potential exposures to hazardous chemicals.

HRG Response: This may be true in some instances, but legislation is needed to ensure that workers will be informed even when it is not in the employer's interest to do so or when an employer is not so conscientious. The results of the NIOSH pilot project in Augusta, Georgia which found that 74% of the workers studied were unaware that BNA, a known human carcinogen, is harmful underscores the need for mandatory legislation.

* * *

Industry Concern #5 Initiatives by OSHA, MSHA, NIOSH, and employers have substantially reduced the risk of occupational disease. In fact, a study by Doll and Peto found a far lower than expected cancer risk associated with workplace exposures. Therefore, we should focus more attention on smoking, diet, alcohol, and radon daughters in homes as major causes of cancer.

HRG Response: The fact remains that occupational disease claims many lives each year. It has been estimated that over 100,000 occupational deaths and 300,000 occupational illnesses occur annually.[10] OSHA often relies on occupational illness estimates provided by the Bureau of Labor Statistics (BLS), which are generally lower. However, OSHA has also conceded that such figures are merely estimates and may underestimate the extent of occupational disease by as much as a factor of 50.[11] Moreover, the link between certain occupational diseases and chemical exposures is incontrovertible. The large numbers of workers exposed to hazardous chemicals portends a significant number of unnecessary occupational illnesses, even if such illnesses occur in only a small percentage of the exposed population. For instance, OSHA has estimated that if occupational exposures account for only 1-5% of all cancers in the United States, the number of cancer deaths from this sphere alone would be between 3,800 and 19,000 annually.[12] However, OSHA believes that as many as 20-40% of U.S. cancers in coming decades will be occupationally related.[13]

It is also worth noting that the results of Doll and Peto's study are quite controversial and have been hotly contested by many reputable scientists. In particular, the link between diet and cancer is largely inconclusive.[14] For a number of reasons, it is difficult, if not impossible, to determine the percentage of cancer that is attributable to a particular cause. Therefore, we should focus our efforts on preventable causes of cancer and other chronic diseases.

* * *

Industry Concern #6 Employee exposures to potentially toxic substances are limited to safe levels by OSHA and MSHA standards.

HRG Response: This is an extremely unrealistic and naive view of how these regulatory agencies actually function. OSHA has standards for relatively few substances. For example, there is no OSHA standard for worker exposure to MOCA, a known animal carcinogen.

For the most part, even the few standards that do exist are outdated and were adopted primarily to prevent acute (immediate) but not long-term effects. For example, the current OSHA standard for benzene is 10 ppm, even though OSHA itself has concluded that a "significant risk" of leukemia persists at levels as low as 1 ppm.[15] NIOSH has submitted numerous criteria documents to OSHA recommending lower occupational standards for more than 100 chemicals; OSHA has acted on very few of these recommendations.

OSHA's regulatory inertia is underscored by a February 1983 internal OSHA task force memorandum which acknowledged that "OSHA is no longer involved in health standards development activity with respect to 116 substances", including known carcinogens and other highly toxic chemicals. The task force concluded that "[i]t is easier to tell the public or industry that the Agency is doing nothing on a substance-by-substance basis than to explain why nothing is being done on 116 substances or that no regulatory activity is forseen." In a 1984 report to OSHA, NIOSH recommended that "the existing OSHA standard is not sufficiently protective" for 51 of the 116 substances, 26 of which are known or suspected to be human carcinogens.[16]

* * *

Industry Concern #7 Notification of risk has emotional and psychological implications for workers that must be taken into account.

HRG Response: This does not mean that workers should not be notified of their risk. Instead, careful attention should be given to how the worker is apprised of his or her risk. Moreover, a recent study published in the Journal of the American Medical Association found that individual worker notification did not have any marked impact on family disruption or distress.[17] We agree with an editorial in the same issue that concluded that

> Using the concern for inducing stress as a rationalization to avoid disseminating risk information is probably unwarranted and contrary to the civil rights of citizens.[18]

* * *

Industry Concern #8 Individual notification should be prioritized according to whether early medical intervention will have a beneficial effect.

HRG Response: We have no objection to NIOSH setting reasonable priorities for notification, provided that "priority setting" does not become a justification for avoiding notification. Regardless of whether medical intervention is possible, both NIOSH and the CDC agree that NIOSH has an ethical obligation to inform workers of their increased risk. Furthermore, this information can be used to obtain financial, if not medical benefits for workers and their families.

* * *

Industry Concern #9 The benefits proposed by the bill for the care and treatment of workers are already obtainable under workers' compensation laws.

HRG Response: There is widespread agreement that compensation laws are for the most part grossly inadequate. In 1980, OSHA reported to Congress that only 5% of those who report severe disability from illnesses perceived to be occupational in origin received workers' compensation in 1974. Less than 3% of all workers' compensation cases were for occupational diseases.[19] The report concluded that "many types of occupational illnesses are not readily accomodated by the workers' compensation system" and "since few occupational disease claims are compensated by the workers' compensation system, medical care costs are not provided to most victims of an occupational disease."

* * *

Industry Concern #10 The provision in H.R. 1309 for certification of occupational centers is unnecessary because employer facilities are already capable of monitoring and treating workers.

HRG Response: There is a built-in conflict of interest for occupational physicians who work for industry. Furthermore, there have been documented cases where this conflict of interest has operated to the detriment of the worker.[20] To counter the growing concern over the conflict of interest inherent in the doctor-patient-company relationship, in 1976 the American Occupational Medicine Association wrote a code of ethical conduct for occupational physicians -- tacit recognition that there is at the very least a perceived problem in this area.

We believe that a conflict of interest *can* exist and endorse the certification of independent occupational and environmental centers for workers.

* * *

Industry Concern #11 The risk derived from epidemiological studies is applicable for groups (or cohorts) of workers, not individuals. Thus, group risk estimates from these studies cannot be used for individual notification of risk.

HRG Response: Epidemiological studies can be used to inform workers that they are more likely to contract a particular occupationally-related disease than someone who has not received the same exposures or experienced the same place of employment. According to Dr. Paul Schulte of NIOSH, individual notification of risk is not specious as long as "the individual is informed of the cohort risk concept and of the fact that risk is a probabilistic rather than a deterministic phenomenon."[21]

In closing, we would again like to express our support for H.R. 1309 and add that we would be happy to assist the Subcommittee in any way possible on this bill.

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January 23, 1985

PUBLIC CITIZEN HEALTH RESEARCH GROUP REPORT ON NIOSH STUDIES SHOWING INCREASED WORKER HEALTH RISKS

This week we obtained, via the Freedom of Information Act, summaries of studies by the National Institute of Occupational Safety and Health (NIOSH) which disclosed, for the first time, the names and locations of 253 workplaces where NIOSH investigations had previously determined over 200,000 workers to be at increased risk of cancer, lung disease, heart disease and other health problems. NIOSH and Centers for Disease Control (CDC) doctors and scientists have recommended that individual notification of all of these workers be undertaken. NIOSH knows the identity of most of these workers but the Reagan Administration has rejected a budget request from CDC for such notification.

Of the more than 200,000 workers who were identified as being at increased risk and for whom NIOSH recommended notification, one purpose of notification cited by NIOSH for all 200,000 workers is to "stimulate improvements in working conditions." In the accompanying charts, each workplace has either A, B, or C at the right end of the line. This is NIOSH's way of categorizing studies according to the purpose of notification.

Category A: (86 WORKSITES, 110,005 WORKERS)
"Studies in which participants could gain direct medical/health benefits from notification."

Category B: (136 WORKSITES, 137,967 WORKERS)
"Studies in which participants are potentially at high risk and should be notified but there are no known effective intervention methods."

Category C: (27 WORKSITES, 6,508 WORKERS)
"Studies in which individual participant notification would stimulate improvements in working conditions."

The best evidence of how important and life saving such notification is comes from a pilot project in Augusta, Georgia involving the Augusta Chemical Company and exposure of workers to betanaphthylamine (BNA), known to cause bladder cancer. As a result of the pilot notification and screening program, 13 out of 586 screened workers were found to have bladder cancer with 26 additional workers having tests highly suggestive of premalignant changes.

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In a study published this month on the notification aspects of this project (J. Occup. Med. 27 19-28, 1985), NIOSH scientists presented striking evidence of the extent to which notified workers who had been exposed to BNA had been previously unaware of the dangers they faced:

- 42% of workers who were notified had never heard of BNA.
- 74% of workers were unaware that BNA is harmful.
- Of the 26% of workers who had known prior to notification that BNA is harmful, most had learned about this only after they had developed symptoms such as blood in their urine, often a sign of bladder cancer.

Because this pilot study showed that worker notification and subsequent screening is feasible, and because CDC scientists have said that there is an ethical obligation to individually notify workers, it is indefensible that the Reagan Administration refuses to fund such an effort. In a letter to President Reagan dated October 22, 1984, we asked him to immediately order individual notification of these 200,000 workers and also asked for an explanation of past failures to notify.

Then HHS Assistant Secretary for Health Dr. Edward Brandt responded for President Reagan in a November 13, 1984 letter which pointed out that "we believe individual worker notification is an important issue," but failed to explain why a $4 million budget request from CDC (FY 1985) was turned down.

We believe that the real reason why this administration will not fund individual worker notification is that in at least some instances, workers who learn that they have contracted bladder cancer, for example, because of their workplace exposure, might file a lawsuit. The Reagan Administration seems more zealous about protecting companies from paying the real costs of doing the kind of business which injures or kills workers than in allowing workers to find out sooner, rather than too late, that they are at increased risk of cancer and other diseases.

State	Cities Where Exposure Occurred
AL	Axis, Birmingham, Gadston
AR	Jacksonville
AZ	Bisbee, Globe, Miami, Prescott, San Manuel, Superior, Tucson
CA	Bishop, Canoga Park, Fontana, Los Angeles, Newburg Park, Northridge, Oakland, Redwood, Sacramento, San Jose, Santa Clara, Santa Cruz, Torrence
CO	Broomfield, Climax, Denver, Gilman, Rico
CT	Muskegon, New Haven
DE	Claymont
FL	Jacksonville, Palmetta, Plant City, Sanford
GA	Atlanta, Augusta
ID	Burke, Kellogg, Silverton, Wallace
IL	Chicago, Marshall, Sauget
IN	Alexandria, Bloomington, East Chicago, Gary, Shelbyville
KS	Kansas City
KY	Louisville
LA	Norco
MA	New Bedford, Salen, Watertown
MD	Baltimore, Fredericktown, Shadyside
MI	Adrian, Calumet, Detroit, Ironwood, Midland, Negaunee, White Pine, Ypsilanti
MN	Deerwood, Dillon, Duluth
MO	St. Louis, Verona, Viburnum
MT	Butte
NC	Charleston, Charlotte, Davidson, Marshville, Murphy, Newton, Winston-Salem
NE	Grand Island
NH	Meredith
NJ	Birmingham, Clifton, Deepwater, Manville, Newark, Nutley, Patterson, Trenton
NM	Hanover
NV	Reno
NY	Gouverneur, Hudson Falls, New York City, Niagara Falls, Renssellaer
OH	Akron, Ashtabula, Avon Lake, Cincinnati, Cleveland, Defiance, Elmore, Lorain, Newark, Painesville, St. Mary's
OK	Ponca City
ON	Saulte Ste. Marie
OR	Portland
PA	Aliquippa, Brackenridge, Braddock, Clairton, Duquesne, Hazelton, Homestead, Irwin, Lebanon, Lewiston, Manheim, Marcus Hook, Monessen, Morgantown, Pittsburgh, Port Allegheny, Pottstown, Reading, Springhouse, State College
SC	Bennetsville
SD	Lead
TN	Lowland, Memphis
TX	Allamore, Arlington, Deer Park, Edinburg, Freeport, Palestine, Pt. Arthur, Texas City, Tyler, Van Horn
UT	Garfield, Keetley, Park City, Provo
VA	Alexandria, Hopewell
VT	Barre, Englehart
WA	Metaline Falls, Republic, Seattle
WV	Charleston, Nitio, Parkersburg
WY	Sunrise

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
AL	Axis	Shell Oil Company	1,2 dibromo-3-chloropropane (DBCP)	Cancer, reproductive effects	1 of 6 sites with total of 3231	B
AL	Birmingham	Fairfield Works (U.S. Steel)	Coal tar & distillates, metal fumes, sulfuric acid mist, etc.	Resp., liver, pancreas, bowel, mouth & throat cancers. Resp. disease	1 of 17 sites with total of 59,000	B
AL	Gadston	Republic Steel	Same	Same	Same	B
AR	Jacksonville	Hercules	Dioxin	Cancer	1 of 11 sites with total of 1400	B
AR	Jacksonville	Vertac	Same	Same	Same	B
AZ	Bisbee	Copper Queen	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
AZ	Globe	Metate	Asbestos	Lung cancer, mesothelioma, asbestosis	1 of 2 sites with total of 57	A
AZ	Globe	Jacquey	Same	Same	Same	A
AZ	Miami	Miami Mine	Silica dust, diesel exhaust	Resp. cancer silicosis	1 of 44 sites with total of 12,318	B
AZ	Prescott	Iron King	Same	Same	Same	B
AZ	San Manuel	San Manuel Mine	Same	Same	Same	B
AZ	Superior	Magma Mine	Same	Same	Same	B
AZ	Superior	Magma Mine	Silica	Resp. disease	1 of 7 sites with total of 500	C
AZ	Tucson	Daisy Mine (Pima Mining Co.)	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
AZ	Unknown	IRADO Co.	Silica, diesel fumes	Resp. disease	1 of at least 10 states with total of 5000	C

State	City	Plant	Exposure	Disease	# of Workers Exposed	Categor
AZ	Unknown	Uranium mines & mills	Uranium, thorium, radium isotope, radon daughters, silica	Lung cancer, resp. disease, tuberculosis	1 of 4 states with total of 5000	A
AZ	Unknown	Same	Same	Altered sex ratios in 1st born offspring	1 of 4 states with total of 10,000 offspring	A
AZ	Unknown	Same	Uranium, thorium, radium isotope, radon daughters	Lung cancer, resp. disease	1 of 4 states with total of 22,000	A
CA	Bishop	Pine Creek Mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
CA	Canoga Park	Rockwell Int'l	OSHA regulated carcinogens	Cancer	1 of 9 sites with total of 179	B
CA	Fontana	Kaiser	Coal tar & distillates, metal fumes, sulfuric acid mist, etc.	Resp., liver, pancreas, bowel, mouth & throat cancers. Resp. disease	1 of 17 sites with total of 59,000	B
CA	Los Angeles	Siveco, Inc.	OSHA regulated carcinogens	Cancer	1 of 9 sites with total of 179	B
CA	Newburg Park	Northrop Corp.	Same	Same	Same	B
CA	Northridge	Teldyne Systems	Same	Same	Same	B
CA	Oakland	AFL-CIO Laundry and Dry Cleaning International	Perchloroethylene	Same	1 of 4 locals with total of 1597	B
CA	Redwood City	Diamond Shamrock (Rohm + Haas)	Bis-chloromethyl ether (BCME)	Lung cancer	700	A

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
CA	Sacramento	Sacramento Municipal Utility District	Polychlorinated biphenyls (PCBs)	Cancer	15	B
CA	San Jose	New Idria mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
CA	Santa Clara	Owens Corning	Fibrous glass	Resp. disease	59	A
CA	Santa Cruz	Salz Leathers	Benzidine-derived azo dyes	Cancer	1 of 6 sites with total of 38	A
CA	Torrence	Montose	Chlorinated hydrocarbons (e.g. chlordane, heptachlor, aldrin, endrin, DDT)	Same	1 of 4 sites with total of 2100	B
CA	Unknown	Unknown	Cotton dust in cotton ginners	Resp. disease	1 of 3 states with total of 286	B
CO	Broomfield	Lange Co.	OSHA regulated carcinogens	Cancer	1 of 9 sites with total of 179	B
CO	Climax	Climax Mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
CO	Denver	Shell	Chlorinated hydrocarbons (e.g. chlordane, heptachlor, aldrin, endrin, DDT)	Cancer	1 of 4 sites with total of 2100	B
CO	Denver	Shell Chemical Co.	1,2-Dibromo-3-chloropropane (DBCP)	Cancer, reproductive effects	1 of 6 sites with total of 3231	B
CO	Denver	Asarco	Cadmium	Lung and prostate cancer	1500	A
CO	Gilman	Eagle Mine	Silica dust, diesel exhaust	Resp. cancer, Silicosis	1 of 44 sites with total of 12,318	B
CO	Rico	Rico Argentine Mine	Same	Same	Same	B

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
CO	Unknown	Uranium mines & mills	Uranium, thorium, radium isotope, radon daughters, silica	Lung cancer, resp. disease, tuberculosis	1 of 4 states with total of 5000	A
CO	Unknown	Same	Same	Altered sex ratios in 1st born offspring	1 of 4 states with total of 10,000 offspring	A
CO	Unknown	Same	Uranium, thorium, radium isotope, radon daughters	Lung cancer, resp. disease	1 of 4 states with total of 22,000	A
MI	Muskegon	Lakeway Chemicals	Benzidine	Bladder cancer	1 of 3 sites with total of 1650	A
CT	New Haven	UpJohn Co.	Same	Same	Same	A
CT	NORTH HAVEN	" "	3,3 DICHLOROBENZIDINE (DCB)	BLADDER CANCER	1 OF 2 SITES TOTAL 236	A
DE	Claymont	Unknown	Kepone	Cancer	1 of 10 sites with total of 2269	B
FL	Jacksonville	Black Magic Company	Kepone	Cancer	1 of 10 sites with total of 2269	B
FL	Palmetto	Southern Agricultural Insecticides	Same	Same	Same	B
FL	Plant City	Asgrow Florida Co.	Same	Same	Same	B
FL	Sanford	Chase Co.	1,2-Dibromo-3-chloropropane (DBCP)	Cancer, reproductive effects	1 of 6 sites with total of 3231	B
GA	Atlanta	Cluett & Peabody (Arrow Shirt)	Formaldehyde	Cancer	1 of 2 sites with total of 14,000	B
GA	Augusta	Synalloy	Beta-naphthylamine	Bladder cancer	1150	A

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
ID	Burke	Star Mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
ID	Kellogg	Sunshine Mine	Same	Same	Same	B
ID	Kellogg	Bunker Hill Mine	Same	Same	Same	B
ID	Kellogg	Bunker Hill Mine	Silica	Resp. disease	1 of 7 sites with total of 500	C
ID	Kellogg	Crescent Mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
ID	Silverton	Hercules Mine	Same	Same	Same	B
ID	Wallace	Dayrock Mine	Same	Same	Same	B
ID	Wallace	Page Mine	Same	Same	Same	B
ID	Unknown	IRADO Co.	Silica, diesel fumes	Resp. disease	1 of at least 10 states with a total of 5000	C
IL	Chicago	Laundry, Dry Cleaning, & Dye House Workers Int'l Union	Perchloroethylene	Cancer	1 of 4 locals with total of 1597	B
IL	Chicago	Velsicol Chemical Corp.	1,2-Dibromo-3-chloropropane (DBCP)	Cancer, reproductive effects	1 of 6 sites with total of 3231	B
IL	Chicago	Riverdale	Dioxin	Cancer	1 of 11 sites with total of 1400	B
IL	Marshall	Velsicol	Chlorinated hydrocarbons (e.g. chlordane, heptachlor, aldrin, endrin, DDT)	Same	1 of 4 sites with total of 2100	B
IL	Sauget	Monsanto	Dioxin	Same	1 of 11 sites with total of 1400	B

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
IN	Alexandria	Johns Manville	Mineral wool	Resp. disease	200	A
IN	Bloomington	Westinghouse	Polychlorinated biphenyls (PCBs)	Cancer	230	B
IN	East Chicago	Inland Steel	Coal tar & distillates, metal fumes, sulfuric acid mist, etc.	Resp., liver, pancreas, bowel, mouth & throat cancers. Resp. disease	1 of 17 sites with total of 59,000	B
IN	Gary	Gary Works (U.S. Steel)	Same	Same	Same	B
IN	Shelbyville	Pittsburgh Plate Glass	Fibrous glass	Resp. disease	1 of 4 sites with total of 10,000	A
KS	Kansas City	Thompson Hayward	Dioxin	Cancer	1 of 11 sites with total of 1400	B
KS	Unknown	IRADO Co.	Silica, diesel fumes	Resp. disease	1 of at least 10 states with total of 5000	C
KY	Louisville	B.F. Goodrich	Vinyl chloride	Liver, brain & lung cancer	1 of 6 sites with total of 1300	B
LA	Norco	Shell	Epichlorohydrin	Cancer	1 of 2 sites with total of 864	B
MA	New Bedford	Aerovix Industries	Polychlorinated biphenyls (PCBs)	Cancer	1599	B
MA	Salen	Sylvania	Beryllium	Lung cancer, resp. disease	1 of at least 4 sites with total of 887	A
MA	Watertown	Ionics	Bis-chloromethyl ether, chloro-methyl (methyl) ether (BCME, CMME)	Lung cancer	1 of 6 sites with total of 1600	A

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
MD	Baltimore	Allied Chemical Company	Kepone	Cancer	1 of 10 sites with total of 2269	B
MD	Baltimore	Young-Analine Co.	Benzidine	Bladder cancer	1 of 3 sites with total of 1650	A
MD	Fredericktown	Unknown	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
MD	Shadyside	Chesapeake Instrument Corp.	OSHA regulated carcinogens	Cancer	1 of 9 sites with total of 179	B
MI	Adrian	Anderson Development Company	4,4-Methylene-bis (chloroaniline) (MOCA)	Cancer	549	B
MI	Calumet	Centennial2	Silica dust, diesel exhaust	Resp. cancer silicosis	1 of 44 sites with total of 12,318	B
MI	Detroit	Amalgamated Clothing & Textile Workers Union	Perchloroethylene	Cancer	1 of 4 locals with total of 1597	B
MI	Ironwood	Penokee Mine	Silica dust, diesel exhaust	Resp. cancer silicosis	1 of 44 sites with total of 12,318	B
MI	Midland	Dow	Bis-chloromethyl ether, chloromethyl (methyl) ether (BCME, CMME)	Lung cancer	1 of 6 sites with total of 1800	A
MI	Midland	Same	Dioxin	Cancer	1 of 11 sites with total of 1400	B
MI	MUSKEGON	LAKEWAY CHEMICALS	BENZIDINE	BLADDER CANCER	1 OF 3 TOTAL 1650	A
MI	Negaunee	Tracy Mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
MI	Negaunee	Mather B Mine	Same	Same	Same	B

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
MI	Negaunee	Mather B Mine	Silica	Resp. disease	1 of 7 sites with total of 500	C
MI	White Pine	White Pine Mine	Silica	Resp. disease	1 of 7 sites with total of 500	C
MI	White Pine	Same	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
MI	Ypsilanti	Peninsular Paper Co.	Benzidine-derived azo dyes	Cancer	1 of 6 sites with total of 38	A
MI	Unknown	IRADO Co.	Silica, diesel fumes	Resp. disease	1 of at least 10 states with total of 5000	C
MN	Deerwood	Armour 1, 2, 3	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
MT	Dillon	Pfizer Co.	Talc	Resp. disease (pleural thickening)	1 of 7 sites with total of 308	C
MN	Duluth	Duluth Works (U.S. Steel)	Coal tar & distillates, metal fumes, sulfuric acid mist, etc.	Resp., liver, pancreas, bowel, mouth & throat cancers. Resp. disease	1 of 17 sites with total of 59,000	B
MT	Unknown	Ennis, Alder	Talc	Reso. disease (pleural thickening)	1 of 7 sites with total of 308	C
MO	St. Louis	Union Electric Co	Polychlorinated biphenyls	Cancer	25	B
MO	Verona	Syntex	Dioxin	Same	1 of 11 sites with total of 1400	B
MO	Viburnum	Lead Corp.	Silica dust, diesel exhaust	Resp. disease	1 of 44 sites with total of 12,318	B

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
MT	Butte	Anaconda Mining Co.	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
MT	THREE FORKS	UNKNOWN	TALC	RESP. (PLURAL THICKENING)		
~~NC~~ SC	Charleston	Raybestos-Manhattan	Asbestos	Lung cancer, mesothelioma, asbestosis	1 of 11 sites with total of 4100	A
SC ~~NC~~	Charleston	Same	Same	Same	1140	A
NC	Charlotte	H.K. Porter	Same	Same	1 OF 11 TOTAL 4100	A
NC	Charlotte	Same	Same	Same	1 of 8 sites with total of 7600	A
NC	Charlotte	Scanduras	Same	Same	1 of 11 sites with total of 4100	A
NC	Charlotte	Same	Same	Same	1 of 8 sites with total of 7600	A
NC	Davidson	H.K. Porter	Same	Same	1 of 8 sites with total of 4100	A
NC	Davidson	Same	Same	Same	1 of 11 sites with total of 4100	A
NC	Marshville	Raybestos-Manhattan	Same	Same	1 of 8 sites with total of 7600	A
NC	Marshville	Johns Manville	Same	Same	1 of 11 sites with total of 4100	A
NC	Murphy	Hitchcock Corp.	Talc	Resp. disease (Pleural thickening)	1 of 7 sites with total of 308	C
NC	Newton	Clyde Fabrics	Benzidine-derived azo dyes	Cancer	1 of 6 sites with total of 38	A
NC	Winston-Salem	Hanes Dyeing and Finishing Co.	Same	Same	Same	A
NC	Unknown	Burlington Mills	Cotton dust	Resp. disease, cardiovascular problems	2844	B

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
NE	Grand Island	Cyprus Industrial Minerals	Talc	Resp. disease (pleural thickening)	1 of 7 sites with total of 308	C
NH	Meredith	American Asbestos Textile	Asbestos	Lung cancer, mesothelioma, asbestosis	1 of 11 sites with total of 4100	A
NJ	Birmingham	Ionac	Bis-chloromethyl ether, chloro-methyl (methyl) ether (BCME, CMME)	Lung cancer	1 of 6 sites with total of 1800	A
NJ	Clifton	Walco-Linck Corp.	Kepone	Cancer	1 of 10 sites with total of 2269	B
NJ	Deepwater	E.I. duPont deNemours & Co.	OSHA regulated carcinogens	Same	1 of 9 sites with total of 179	B
NJ	Manville	Johns-Manville	Asbestos	Lung cancer, mesothelioma, asbestosis	1 of 11 sites with total of 4100	A
NJ	Manville	Johns-Manville	Same	Same	1 of 8 sites with total of 7600	A
NJ	Newark	Diamond Alkali Co.	Dioxin	Cancer	1 of 11 sites with total of 1400	B
NJ	Nutley	Hoffman-La-Roche, Inc.	OSHA regulated carcinogens	Same	1 of 9 sites with total of 179	B
NJ	Patterson	Fabricolor	Benzidine-derived azo dyes	Same	1 of 6 sites with total of 38	A
NJ	Trenton	NJ Motor Vehicle Department	Carbon monoxide	Cancer, cardiovascular disease	1600	B
NM	Hanover	Empire-Hanover Mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
NM	Unknown	Unknown	Cotton dust in cotton ginners	Resp. disease	1 of 3 states with total of 286	B

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
NM	Unknown	IRADO Co.	Silica, diesel fumes	Resp. disease	1 of at least 10 states with total of 5000	C
NM	Unknown	Uranium mines & mills	Uranium, thorium, radium isotope, radon daughters, silica	Lung cancer, resp. disease, tuberculosis	1 of 4 states with total of 5000	A
NM	Unknown	Same	Same	Altered sex ratios in 1st born offspring	1 of 4 states with total of 10,000 offspring	A
NM	Unknown	Same	Uranium, thorium, radium isotope, radon daughters	Lung cancer, resp. disease	1 of 4 states with total of 22,000	A
NV	Reno	Cordero Mine (NV Mining Assoc.	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
NY	Gouverneur	RT Vanderbilt	Talc (asbestiform)	Lung cancer, resp. disease	750	A
NY	Gouverneur	Vanderbilt Talc Co.	Talc	Resp. disease (pleural thickening)	125	C
NY	Hudson Falls	General Electric	Polychlorinated biphenyls (PCBs)	Cancer	986	B
NY	New York City	UAW locals 259 & 595	Asbestos	Lung cancer, mesothelioma, asbestosis	1 of 3 unions with total of 882	A
NY	New York City	SEIU local 246	Same	Same	Same	A
NY	New York City	AFSCME District Council #37	Same	Same	Same	A
NY	New York City	Amalgamated Clothing & Textile Workers Union	Perchloroethylene	Cancer	1 of 4 locals with total of 1597	B

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
NY	New York City	International Pressmen & Assistants Union Local #2	Inks and oil mists	Lung, mouth, & throat cancer. Resp. disease	1769	B
NY	Niagara Falls	Hooker Chemicals & Plastics Corp.	Bis-chloromethyl ether, chloro-methyl (methyl) ether (BCME, CMME)	Lung cancer	1 of 6 sites with total of 1800	A
NY	Niagara Falls	Same	1,2-Dibromo-3-chloropropane (DBCP)	Cancer, reproductive effects	1 of 6 sites with total of 3231	B
NY	Niagara Falls	Same	Kepone	Cancer	1 of 10 sites with total of 2269	B
NY	Rensselaer	GAF (BASF WYANDOT)	Benzidine-derived azo dyes	Cancer	1 of 6 sites with total of 38	A
OH	Akron	Goodyear Tire & Rubber Co.	Benzene	Leukemia	1 of 2 sites with total of 1000	B
OH	Ashtabula	General Tire & Rubber	Vinyl chloride	Liver, brain & lung cancer	1 of 6 sites with total of 1300	B
OH	Avon Lake	B.F. Goodrich	Same	Same	Same	B
OH	Cincinnati	Construction Workers Local #8	Asbestos	Lung cancer, mesothelioma, asbestosis	1 of 11 sites with total of 4100	A
OH	Cincinnati	Philip-Carey	Same	Same	1 of 8 sites with total of 7600	A
OH	Cincinnati	Int'l Molders Union	Silica, polyaromatic hydrocarbons	Lung cancer, resp. disease	2000	B
OH	Cleveland	Brush-Wellman (Lorain)	Beryllium	Lung cancer, resp. disease	1 of 6 sites with total of 3300	A
OH	Cleveland	Brush-Wellman (Lucky)	Same	Same	Same	A

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
OH	Cleveland	Brush-Wellman (St. Clair)	Beryllium	Lung cancer, resp. disease	1 of 6 sites with total of 3300	A
OH	Cleveland	Brush-Wellman (Elmore)	Same	Same	Same	A
OH	Cleveland	Brush-Wellman (Perkins)	Same	Same	Same	A
OH	Cleveland	Brush-Beryllium Company	Same	Same	1 of at least 4 sites with total of 887	A
OH	Cleveland	General Electric	Same	Same	Same	A
OH	Defiance	Johns Manville	Fibrous glass	Resp. disease	1 of 4 sites with total of 10,000	A
OH	Elmore	Brush-Wellman	Beryllium	Lung cancer, resp. disease	1 of 4 sites with total of 1600	A
OH	Lorain	Same	Same	Same	Same	A
OH	Newark	Owens-Corning	Fibrous glass	Resp. disease	1 of 4 sites with total of 10,000	A
OH	Painesville	Uniroyal	Vinyl chloride	Liver, brain & lung cancer	1 of 6 sites with total of 1300	B
OH	St. Mary's	Goodyear Tire & Rubber Co.	Benzene	Leukemia	1 of 2 sites with total of 1000	B
OH	Unknown	IRADO Co.	Silica, diesel fumes	Resp. disease	1 of at least 10 states with total of 5000	C
OH	Unknown	Unknown	Carbon disulfide	Cardiovascular disease	9000	A
OK	Ponca City	Continental Oil Co.	Bis-chloro-methyl ether, chloro-methyl (methyl) ether (BCME, CMME)	Lung cancer	1 of 6 sites with total of 1800	A

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
Ontario	Saulte Ste. Marie	Algoma Steel	Coal tar & distillates, metal fumes, sulfuric acid mist, etc.	Resp., liver, pancreas, bowel, mouth & throat cancers. Resp. disease	1 of 17 sites with total of 59,000	B
OR	Portland	Rhone Poulene	Dioxin	Cancer	1 of 11 sites with total of 1400	B
PA	Aliquippa	Jones and Laughlin Steel Corp.	Coal tar & distillates, metal fumes, sulfuric acid mist, etc.	Resp., liver, pancreas, bowel, mouth & throat cancers. Resp. disease	1 of 17 sites with total of 59,000	B
PA	Brackenridge	Allegheny Ludlum Corp.	Same	Same	Same	B
PA	Braddock	Braddock Works (U.S. Steel)	Same	Same	Same	B
PA	Clairton	Clairton Works (U.S. Steel)	Same	Same	Same	B
PA	Duquesne	Duquesne Works (U.S. Steel)	Same	Same	Same	B
PA	Hazelton	Kawicki-Berylco	Beryllium	Lung cancer, resp. disease	1 of 4 sites with total of 1600	A
PA	Homestead	Homestead Steel Works (U.S. Steel)	Coal tar & distillates, metal fumes, sulfuric acid mist, etc.	Resp., liver, pancreas, bowel, mouth & throat cancers. Resp. disease	1 of 17 sites with total of 59,000	B
PA	Irwin	Irwin Works (U.S. Steel)	Same	Same	Same	B
PA	Lebanon	Cornwall 3 & 4 (Bethlehem Steel)	Silica dust, diesel exhaust	Resp. cancer, Silicosis	1 of 44 sites with total of 12,318	B
PA	Lewistown	Cluett & Peabody (Arrow Shirt)	Formaldehyde	Cancer	1 of 2 sites with total of 14,000	B

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
PA	Manheim	Raybestos-Manhattan	Asbestos	Lung cancer, mesothelioma, asbestosis	1 of 11 sites with total of 4100	A
PA	Manheim	Same	Same	Same	3276	A
PA	Marcus Hook	Allied Chemical Company	Kepone	Cancer	1 of 10 sites with total of 2269	B
PA	Monessen	Wheeling Pittsburgh	Coal tar & distillates, metal fumes, sulfuric acid mist, etc.	Resp., liver, pancreas, bowel, mouth & throat cancers. Resp. disease	1 of 17 sites with total of 59,000	B
PA	Morgantown	Grace Mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
PA	Morgantown	Same	Silica	Resp. disease	1 of 7 sites with total of 500	C
PA	Pittsburgh	Jones and Laughlin Steel Corp.	Coal tar & distillates, metal fumes, sulfuric acid mist, etc.	Resp., liver, pancreas, bowel, mouth & throat cancers. Resp. disease	1 of 17 sites with total of 59,000	B
PA	Port Aliegheny	Pittsburgh-Corning	Asbestos	Lung cancer, mesothelioma, asbestosis	1 of 11 sites with total of 4100	A
PA	Pottstown	Firestone	Vinyl chloride	Liver, brain & lung cancer	1 of 6 sites with total of 1300	B
PA	Pottstown	Unknown	Same	Liver enlargement, hypertension, CNS symptoms	433	B
PA	Reading	Cabot-Berylco (Reading)	Beryllium	Lung cancer, resp. disease	3200	A
PA	Reading	Cabot-Berylco (Hazelton)	Same	Same	1 of 6 sites with total of 3300	A
PA	Reading	Kawicki-Berylco	Same	Same	1 of 4 sites with total of 1600	A

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
PA	Reading	Cabot-Berylco	Same	Same	1 of at least 4 sites with total of 887	A
PA	Reading	Reading Company	Asbestos	Lung cancer, mesothelioma, asbestosis	318	A
PA	Springhouse	Rohm and Haas	Bis-chloro methyl ether, chloro-methyl (methyl) ether (BCME, CMME)	Lung cancer	1 of 6 sites with total of 1800	A
PA	State College	Nease Chemical Company	Kepone	Cancer	1 of 10 sites with total of 2269	B
PA	Unknown	IRADO Co.	Silica, diesel fumes	Resp. disease	1 of at least 10 states with total of 5000	C
SC	Bennetsville	H.K. Porter	Asbestos	Lung cancer, mesothelioma, asbestosis	1 of 8 sites with total of 7600	A
SC	CHARLESTON · SEE NC CHARLESTON					
SD	Lead	Homestake Goldmine	Asbestos, radon daughters, arsenic, silica	Lung cancer, mesothelioma, asbestosis, resp. disease	3000	A
SD	Lead	Homestake	Same	Same	849	A
SD	Lead	Homestake Mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
SD	Lead	Homestake Mine	Silica	Resp. disease	1 of 7 sites with total of 500	C
SD	Unknown	IRADO Co.	Silica, diesel fumes	Resp. disease	1 of at least 10 states with total of 5000	C
TN	Lowland	American Enka Co.	Carbon disulfide	Cardiovascular disease	156	B
TN	Memphis	Velsicol	Chlorinated hydrocarbons (e.g. chlordane, heptachlor, endrin, aldrin, DDT, dieldrin	Cancer	1 of 4 sites with total of 2100	B

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
TX	Allamore	Pioneer Talc	Talc	Resp. disease (pleural thickening)	1 of 7 sites with total of 308	C
TX	Arlington	Oil States Rubber	OSHA regulated carcinogens	Cancer	1 of 9 sites with total of 179	B
TX	Deer Park	Shell	Epichlorohydrin	Same	1 of 2 sites with total of 864	B
TX	Edinburg	Tide Products, Inc.	1,2-Dibromo-3-chloropropane (DBCP)	Cancer, reproductive effects	1 of 6 sites with total of 3231	B
TX	Freeport	Dow Chemical	Mixed exposures	Brain cancer	2096	B
TX	Palestine	Southern Clay, Van Horn & Palestine	Talc	Resp. disease (pleural thickening)	1 of 7 sites with total of 308	C
TX	Pt. Arthur	Texaco	Mixed exposures	Brain cancer	1 of 3 sites with total of 2000	B
TX	Pt. Arthur	Gulf	Same	Same	Same	B
TX	Pt. Arthur	Mobile	Same	Same	Same	B
TX	Texas City	Amoco	Same	Malignant melanoma, brain & liver cancer	162 deaths	B
TX	Texas City	Marathon	Same	Same	62 deaths	B
TX	Texas City	Union Carbide	Same	Brain cancer	10,000	B
TX	Tyler	Pittsburgh-Corning	Asbestos	Lung cancer, mesothelioma, asbestosis	1 of 11 sites with total of 4100	A
TX	Tyler	Same	Same	Same	1 of 8 sites with total of 7600	A
TX	Van Horn	Milwhite Talc	Talc	Resp. disease (pleural thickening)	1 of 7 sites with total of 308	C
TX	Unknown	Unknown	Cotton dust in cotton ginners	Resp. disease	1 of 3 states with total of 286	B

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
UT	Garfield	Kennecott Copper Smelter	Sulfur dioxide, arsenic, dust	Resp. disease	1100	A
UT	Keetley	Mayflower Mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
UT	Park City	United Park City Mine	Same	Same	Same	B
UT	Provo	Geneva Works (U.S. Steel)	Coal tar & distillates, metal fumes, sulfuric acid mist, etc.	Resp., liver, pancreas, bowel, mouth & throat cancers. Resp. disease	1 of 17 sites with total of 59,000	B
UT	Unknown	Uranium mines & mills	Uranium, thorium, radium isotope, radon daughters, silica	Lung cancer, resp. disease, tuberculosis	1 of 4 states with total of 5000	A
UT	Unknown	Same	Same	Altered sex ratios in 1st born offspring	1 of 4 states with total of 10,000 offspring	A
UT	Unknown	Same	Uranium, thorium, radium isotope, radon daughters	Lung cancer, resp. disease	1 of 4 states with total of 22,000	A
VA	Alexandria	R.H. Bogle Company	Arsenic, mercury	Lung cancer, CNS effects	176	B
VA	Hopewell	Allied Chemical Company	Kepone	Cancer	1 of 10 sites with total of 2269	B
VT	Barre	Quarries & finishing sheds	Silica	Resp. disease	2000	B
VT	Englehart	Johnson & Johnson	Talc	Same	1 of 2 sites with total of 750	A
VT	Englehart	Eastern Magnesia Talc Co.	Same	Same	Same	A

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
WA	Metaline Falls	Pend'Orielle Mine	Silica dust, diesel ex-	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
WA	Metaline Falls	Grandview Mine	Same	Same	Same	B
WA	Republic	Knob Hill Mine	Same	Same	Same	B
WA	Seattle	Boilermakers Union Local # 104	Asbestos, welding fumes	Lung cancer, resp. disease	8679	A
WV	Charleston	Union Carbide	Vinyl chloride	Liver, brain & lung cancer	1 of 6 sites with total of 1300	B
WV	Nitro	Monsanto	Dioxin	Cancer	1 of 11 sites with total of 1400	B
WV	Parkersburg	Johns Manville	Fibrous glass	Resp. disease	1 of 4 sites with total of 10,000	A
WY	Sunrise	Sunrise Mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
WY	Sunrise	Same	Silica	Resp. disease	1 of 7 sites with total of 500	C
WY	Unknown	FMC	Trona dust, diesel fumes nitrogen dioxide	Resp. disease	1 of 2 sites with total of 700	C
WY	Unknown	Allied	Same	Same	Same	C
WY	Unknown	IRADO Co.	Silica, diesel fumes	Resp. disease	1 of at least 10 states with total of 5000	C
Unk	Unknown	Abbott Mine	Silica dust, diesel exhaust	Resp. cancer, silicosis	1 of 44 sites with total of 12,318	B
Unk	Bristol	Unknown	Same	Same	Same	B

State	City	Plant	Exposure	Disease	# of Workers Exposed	Category
Unk	(Bunker Hill)	Madison Mine	Same	Same	Same	B
Unk	(Sonoma Mt.)	Jackson Mine	Same	Same	Same	B
Unk	Unknown	Wm. T. Thompson	Dioxin	Cancer	1 of 11 sites with total of 1400	B
UNK.	UNKNOWN	MOVAT MINE	SILICA DUST, DIESEL EXHAUST	RESP CANCER, SILICOSIS	1 OF 44 TOTAL 12,318	B

January 23, 1985

President Ronald Reagan
The White House
Washington, D.C.

Dear Mr. President:

Today we are making public a Public Citizen Health Research Group report based on data obtained from the Federal Centers of Disease Control (CDC). The report lists the names of 249 workplaces in 42 states where a total of over 200,000 American workers have been exposed to chemicals and other substances which government studies by CDC's National Institute of Occupational Safety and Health in those workplaces have shown to be linked with an increased risk of cancer, heart disease, or lung disease and other health problems.

Although the government has the names of these workers, and government doctors in CDC and NIOSH are strongly in favor of individual notification, your Administration refuses to spend its resources to save the lives and protect the health of many of these workers by individually notifying them that they are at increased risk so they can get medical help. This can be done, as shown successfully in the case of Augusta Chemical Company in Augusta, Georgia as discussed in the accompanying report. In a letter to you dated October 22, 1984, we asked you to immediately order individual notification of these 200,000 workers and also asked for an explanation of past failures to notify.

Then HHS Assistant Secretary for Health Dr. Edward Brandt responded in a November 13, 1984 letter which pointed out that "we believe individual worker notification is an important issue," but failed to explain why a $4 million budget request from CDC (FY 1985) was turned down.

We believe the real reason why your administration was unwilling to fund individual worker notification is that in some instances, workers who learn that they have contracted bladder cancer, for example, because of their workplace exposure, might file suit. Your administration seems more zealous about protecting companies from paying the real costs of doing the kind of business which injures or kills workers than in allowing workers to find out sooner, rather than too late, that they are at increased risk of cancer and other diseases. Which America are you the leader of?

Sincerely,

Sidney M. Wolfe, M.D.

Ralph Nader

DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service

Office of the Assistant Secretary
for Health
Washington DC 20201

Mr. Ralph Nader
Dr. Sidney Wolfe
Health Research Group
2000 P Street, N.W.
Washington, D.C. 20036

Dear Mr. Nader and Dr. Wolfe:

This is in response to your letter of January 23 to President Reagan regarding notification of individual workers about the results of studies conducted by the National Institute for Occupational Safety and Health (NIOSH). I would like to clarify apparent misunderstandings about the information NIOSH has available and about NIOSH worker notification activities.

It is incorrect to imply that NIOSH has identified 200,000 or more individual workers at personal increased risk of health problems. In record reviews from various sources, NIOSH performs statistical studies and develops aggregate information about trends and potential risk factors for groups of workers, not of individuals. Aggregate data from such industry studies are shared with companies, relevant unions or employee representatives where they exist, as well as with the Department of Labor and appropriate State agencies. Findings are also distributed through scientific literature and through special publications available to the public and media.

In addition to these statistical studies, NIOSH does another type of worksite investigation when a request for assistance with a specific problem is initiated by an employer or employee representative of that worksite. For these studies, reports are sent to the requestor and posted at the worksite for 30 days or sent directly to the affected employees. As stated in the letter of November 13 to you from Dr. Edward N. Brandt, Jr., former Assistant Secretary for Health, where we have examined individuals as part of a study, we have individually notified those involved of their results.

Your statement that the NIOSH lists contained "...the names and locations of 249 workplaces where NIOSH investigations had previously determined over 200,000 workers to be at increased risk..." is inaccurate. The lists were developed by NIOSH to help generalize what study populations might be appropriate for worker notification based on (1) current knowledge about the toxicity of the substance(s) in question or the risks of the population studied, (2) whether medical intervention was possible, and (3) whether controls would be effective. The lists did not state that in all cases all workers at the specific locations were at risk, or that any individual workers were at increased risk. Nor do the lists specifically relate to the current workers at the plants.

Only 60 percent of the plant locations deal with "excess risk determinations" for the study population, based on cohort mortality analysis. The rest pertain to studies that are (1) ongoing, (2) proportionate mortality studies where we only had death records and no records on living individuals, (3) cross-sectional medical studies where notificiation of results to individual workers took place, and (4) the "terminated worker" files (according to the OSHA carcinogen regulations, medical files of workers no longer employed with a particular company are required to be sent to NIOSH for retention to be used in future research studies).

We recognize that it is important to resolve the issue of individual notification from certain retrospective cohort mortality studies. This public health matter deals with complex ethical, medical, and legal issues. We are attempting to arrive at an approach which will be fair, feasible, and which will not, in sum, be detrimental to the worker. The pilot study to notify workers individually at Augusta Chemical Company was one part of this attempt. Other parts of this effort, as described in our previous letter, are continuing evaluations of the pilot studies conducted.

Additional studies are being considered to help resolve major issues involved in responsible worker notification. Examples of these issues are: (1) evaluation of methods of notifying workers, (2) determination of necessity of medical surveillance subsequent to notification and questions concerning who could provide such surveillance, (3) considerations relating to notifying individuals when no effective intervention or early detection method is available, and (4) concerns about what degree of increased risk and scientific certainty warrants individual notification. Until these issues are satisfactorily resolved, it would be inappropriate and unfair to workers, their families, and the companies involved for the Federal government to expend large amounts of money and time to provide notification beyond that which we currently provide.

We will continue our efforts to resolve these important issues so that we can proceed responsibly in this area with whatever actions are necessary.

Sincerely yours,

James O Mason

James O. Mason, M.D., Dr.P.H.
Acting Assistant Secretary for Health

HRG's Response to Mason's Allegation that Individual Worker Notification is Inappropriate

On January 23, 1985, Dr. Sidney Wolfe, Director of Public Citizen Health Research Group, and Ralph Nader released a list of the names and locations of 250 companies where government studies have identified over 200,000 workers who are at high risk of cancer and other major health problems because of their exposure to hazardous chemicals on the job. Wolfe and Nader charged that NIOSH, the government agency that conducted the studies, has the names of these workers but has failed to notify them individually of their increased risk because the Reagan Administration has rejected a budget request from CDC for such notification. NIOSH has concluded that over 100,000 of these workers could gain direct medical or health benefits from individual notification.

Dr. James O. Mason, Acting Assistant Secretary for Health, responded to the charges leveled by Nader and Wolfe in a letter dated March 7, 1985. The letter, which is attached, reiterates HHS's professed concern for the companies involved but sidesteps the issue of government resonsibility for individual worker notification by calling for additional studies "to help resolve major issues involved in responsible worker notification." What follows is a recapitulation of Mason's response and a point-by-point rebuttal by Public Citizen Health Research Group.

Mason: "It is incorrect to imply that NIOSH has identified 200,000 or more individual workers at personal increased risk of health problems. . .The [NIOSH] lists did not state that in all cases all workers at the specific locations were at risk, or that any individual workers were at increased risk."

Response: According to a NIOSH working group, "It is believed... that there are approximately 200-250,000 individuals in 66 studies that might be eligible for notification, depending on what criteria are used." (NIOSH draft, "Overview of the Worker Notification/Right to Know Issue", Jan. 1984) NIOSH's classification of these workers into Categories A and B leaves little doubt that NIOSH considers over 200,000 individuals to be at increased risk:

> Category A: 110,005 workers
> "Studies in which participants could gain direct medical/health benefits from notification."
>
> Category B: (137,967 workers)
> "Studies in which participants are potentially at high risk and should be notified but there are no known intervention methods."

For all 200,000 workers, "individual participant notification would stimulate improvements in working conditions." (NIOSH Document entitled "Epidemiological (and Industrial Hygiene.)

Studies Initiated by NIOSH through January, 1982")

Mason: "Aggregate data from. . .industry studies are shared with companies, relevant unions or employee representatives where they exist, as well as with the Department of Labor and appropriate State agencies. Findings are also distributed through scientific literature and through special publications available to the public and media."

Response: Although these efforts to distribute information are important, they do not reach every worker who is at potentially high risk. For this reason, scientists and doctors at NIOSH advocate individual notification, and a CDC Ethics Committee found that NIOSH has an "ethical obligation" to notify workers individually of their increased risk. ("[CDC] Ethics Subcommittee Deliberations: 'Right to Know' and 'Worker Notification'", Nov. 30, 1983)

Mason: "Nor do the [NIOSH] lists specifically relate to the current workers at the plants."

Response: We never said they did. In most cases, the exposures studied by NIOSH occurred many years ago. It is especially important to notify workers who have been exposed in the past because cancer and other chronic occupational diseases typically do not develop for many years following initial exposure. A number of companies have responded in a similar manner by claiming that workers are no longer exposed to the chemical(s) cited in our report. Clearly, such arguments do not absolve employers of responsibility for the long-term effects of past exposures.

Mason: "Only 60 percent of the plant locations deal with 'excess risk determinations' for the study population, based on cohort mortality analysis. The rest pertain to studies that are (1) ongoing, (2) proportionate mortality studies where we only had death records and no records on living individuals, (3) cross-sectional medical studies where notification of results to individual workers took place, and (4) the 'terminated worker' files [medical files of workers no longer employed with a particular company]."

Response: Apparently, Mason views notification in these instances to be unnecessary. However, the NIOSH category ratings (A, B, or C) assigned to studies in case (1) plainly reflect NIOSH's determination that a hazard exists (See "...Studies Initiated by NIOSH through January 1982".) Regarding case (4), we have already discussed the need to notify former, as well as current employees. As for case (2), families of deceased workers can and should be notified for ethical reasons as well as for purposes of pursuing workers' compensation benefits.

Mason: "We are attempting to arrive at an approach which will be fair, feasible, and which will not, in sum, be detrimental to the worker."

Response: NIOSH has already determined that not notifying at least 100,000 workers of their increased risk may be detrimental to their health because uninformed workers will not know to be on the lookout for early signs of illness that may be treatable. (See "...Studies Initiated by NIOSH through January 1982.")

Mason: "Until these issues are satisfactorily resolved, it would be inappropriate and unfair to workers, their families, and the companies involved for the Federal government to expend large amounts of money and time to provide notification beyond that which we currently provide."

Response: Given that NIOSH has already acknowledged that notification is warranted for over 200,000 workers, it is difficult to understand in what way such action is either "inappropriate" or "unfair" to workers and their families. Thus, Mason's argument evinces more concern for the companies involved than for the workers who are at risk. HHS has echoed similar concerns regarding company liability for worker exposures. One HHS document asks:

> "Does it make any difference that in NIOSH's 1980 Augusta, Georgia pilot notification program, more than 300 million in litigation claims have reportedly been filed against the companies involved? (Memo from Glenna M. Crooks to Edward N. Brandt, Jr. re NIOSH/CDC Worker Notification Issue, Feb. 24, 1984).

Mason's rejoinder is also inconsistent with the fact that CDC submitted a $4 million budget request to HHS for fiscal year 1985 to fund individual worker notification. That request was subsequently turned down by HHS.

Mr. **Gaydos**. Thank you very much.

I will at this time call Mr. Hayes.

Mr. **Hayes**. Thank you, Mr. Chairman. I was just noticing with interest the—I think you list the 11—I guess you could categorize them as objections on the part of industry to this bill.

The question of notification, and response of your organization being essentially research to—I think some of your answers that I had a chance to read this briefly are quite accurate and concise, and I just want to say that I appreciate your testimony, and I will complete my review and study of your written testimony, which you addressed to the chairman and the other members of the subcommittee. Your organization.

You mention something that I might want to—you say on the industry concern, No. 1, which has to do the question of notification legislation, where the industry says it is not needed.

The response of your organization is, in the first place, the Hazardous Communication Standard is limited in its ability to communicate hazards to workers because only a limited number of substances and workers are presently covered. You mentioned specifically the standard covers 2,000 of over 60,000 chemicals currently in commercial use.

It applies only to those workers in the manufacturing sector. Are you saying of the 60,000, only 2,000 of them are in the manufacturing sector?

Ms. **Abrams**. No; I am saying that of the 60,000 chemicals that are currently in commercial use, only approximately 2,000 substances are covered by the standard. And the standard only applies to the manufacturing sector, however, OSHA has been ordered by a court decision to rewrite that standard to cover all workers unless it can show why such action would not be feasible.

Mr. **Hayes**. Have they been ordered to rewrite?

Ms. **Abrams**. That is correct. But that has not been done so far.

Mr. **Hayes**. OK. So there is a big, vast number still exposed that is not covered by——

Ms. **Abrams**. That is correct. And there are also just a vast number of chemicals currently in use that will not be covered by the standard, even though they may pose hazards or potential hazards and it may be that we don't even know the health effects of some of these chemicals now.

Mr. **Hayes**. OK, Mr. Chairman, I really will scrutinize this whole thing.

Mr. **Gaydos**. Thank you.

Your comments on NIOSH's interest seem to be well on point. We will be asking Dr. Millar, when he testifies next week before us, as to how he views your position on the matter.

We had other witnesses testify that they would suggest a business tax to fund some of the problems that this legislation might present. How do you feel about that proposition?

Ms. **Abrams**. We had actually considered that proposition, and I think it is something that the subcommittee should definitely look at. There are probably a wide range of alternatives that you need to consider, and possibly industry, at least partial funding of the bill, could be considered an equitable solution, simply because industries are responsible for the need for notification in the first place.

So that is something we would probably support, although I would probably want to warn you that how much the extension which you talk about, in industry tax, will probably be proportional to the amount of industry resistance that you get to this bill.

Mr. GAYDOS. Well, we have the added problem, you know, of split jurisdiction, too, if we start dealing with the Committee on Ways and Means and those ramifications, so that may create some problems.

Ms. ABRAMS. We do have no philosophical problems with introducing some kind of an industry tax to at least some of the costs of notification.

Mr. GAYDOS. It has been suggested by a prior witness that we may look at other things, such as technical assistance for the development of State and local notification efforts, using small grants to mobilize volunteer resources through local organizations, such as unions and existing occupational health clinics that are out there, and other worker service programs; training grants to professional schools, all of which could provide occupational health research and a service into the process of training students, et cetera.

What do you think about those areas of activity? Do you think it would be useful or are we puffing smoke?

Ms. ABRAMS. I think it is certainly a good idea to at least try to use the resources that are currently available. With regard to labor unions, there are many, many workers that are not unionized, and I don't know how that would affect that type of a solution.

Occupational health clinics certainly have a lot of potential in identifying workers at risk. I don't know what the potential is in the scheme of notification, but certainly if there is a way, if you can't come up with a scheme to utilize these resources, that seems like a good solution.

This definitely needs some more thought.

Mr. GAYDOS. That is a pretty practical response.

You raise some interesting points about the bill, and if possible, if we send interrogatories to you, could you make some more specific suggestions with regard to some of the weaknesses you see in the measure?

So what we will do, is we will point this out, and you can take a position.

Ms. ABRAMS. We would be happy to do that.

Mr. GAYDOS. We value your input into this thing.

Ms. ABRAMS. Certainly.

Mr. GAYDOS. Are there any other questions? Anything else that you would like to put on the record?

Ms. ABRAMS. No, I do have a copy of some of the studies that I mentioned in my testimony. If the subcommittee would like these for reference, I would be happy to submit them.

Mr. GAYDOS. How many pages does that consist of?

Ms. ABRAMS. Probably about 20 or less. One is the study that was published by NIOSH that contains the notification scheme. Actually, that is really the only one that I would want to submit.

Mr. **Gaydos**. All right, I wonder if you could make it available to the committee. We will make copies for the use of each individual member without going into enlarging the record at this point.

Ms. **Abrams**. OK.

Mr. **Gaydos**. All right, under those conditions, the counsel will accept those and make copies available to all the members.

All right, thank you very much. We will be waiting to hear from you.

Ms. **Abrams**. Thank you.

Mr. **Gaydos**. The Chair would like to call at this time Dr. Wood and Dr. Cugell, and Director Babbitz. Is that the panel?

Would you among yourselves make your own choice as to who starts off, who is going to be the moderator and go at it.

STATEMENTS OF RONALD W. WOOD, PH.D., THE AMERICAN PSYCHOLOGICAL ASSOCIATION; DAVID CUGELL, M.D., THE AMERICAN LUNG ASSOCIATION AND THE AMERICAN THORACIC ASSOCIATION; AND MATILDA BABBITZ, EXECUTIVE DIRECTOR, AMERICAN ASSOCIATION OF OCCUPATIONAL HEALTH NURSES

Mr. **Wood**. OK, I would like to start.

Mr. Chairman, thank you for the opportunity to testify before this joint hearing on H.R. 1309. The high risk——

Mr. **Gaydos**. Dr. Wood, is it?

Mr. **Wood**. Yes.

I am Dr. Ronald Wood, I am an assistant professor of toxicology at the University of Rochester. I am a psychologist interested in the neurobehavioral toxicity of chemicals that are encountered in the workplace, and in the environment.

I am a fellow of the American Psychological Association, which—and represent it before you today. The American Psychological Association consists of more than 76,000 professional psychologists with interests in all aspects of normal and abnormal psychological functioning.

I am the Chair of the Committee of the Association that has been following the regulatory activities of the Environmental Protection Agency under the Toxic Substances Control Act.

I appreciate this opportunity to express our concern about chemical injuries that can occur in the workplace, injuries that can result in adverse effects on the nervous system, including impaired sensory and motor function, cognitive and intellectual performance, and emotional well-being.

We agree with the recognition by Congress and TSCA that such adverse health effects should be prevented. We applaud the concern expressed by the committee in H.R. 1309 about worker exposure to chemicals, and the committee's support of workers' right to know about chemicals they are exposed to, and what are the known effects of these substances.

There is no doubt that exposure to chemicals in the working environment can produce adverse changes in the function of the nervous system.

I would like to direct the committee's attention to the recent hearings on neurobehavioral toxicity held in this session of Congress before the Subcommittee on Investigations and Oversight of the House Committee on Science and Technology, where these issues were discussed extensively.

The occupational medicine literature is full of examples, carbon disulfide, besides producing disorders of vision and nerve weakness, increases the incidence of suicide and eventually produces a raging, raving mania.

Inorganic mercury is more subtle, producing social withdrawal, a propensity to blush, and absentmindedness. The Mad Hatter of Lewis Carroll's Alice in Wonderland was a caricature of an occupational malady of the last century.

This surfaced once again a few years ago when two workers eventually presented at our medical center with all of these symptoms, including severe tremor. These two women had worked in an upstate glass factory calibrating pipe heads.

Their local physicians had prescribed tranquilizers for them, thinking that they were neurotic, and not realizing that their symptoms were due to chemical exposure.

A larger incident occurred more recently in a thermometer factory in Vermont. In the case of mercury poisoning, there is a substantial literature warning of its adverse effects on the nervous system, warning workers of the hazards and the necessity of good industrial hygiene.

It would be a big help in such cases, and the present bill would no doubt protect many workers. But what about industrial chemicals about which we know very little?

An instructive incident occurred not too long ago in Texas, in a plastic bathtub manufacturing facility. A new compound was introduced in the manufacturing process, and after 2 weeks, workers began to complain of dizziness and odd sensations, feeling as though on a roller-coaster when traveling in a car.

This progressed, numbness of fingertips and toes, moving gradually up to the extremities. After 2 months, there were severe problems with vision, both color, peripheral and night vision.

The disease progressed on to short-term memory loss, pain in the palms and soles, weakness, muscle spasms, stress incontinence and decreased sexual interest.

When enough workers had been poisoned so that an obvious pattern emerged, the chemical was withdrawn from the process of the manufacturer and no new cases emerged. Some neurobehavioral testing obviously should precede the introduction of new chemicals into the workplace, and I am attaching papers on this for your further perusal.

Clearly, we need to identify hazards before we can set reasonable standards for occupational exposure. Is our knowledge about chemical toxicity adequate to specify appropriate level of exposure?

The National Academy of Sciences recently addressed this issue in a report entitled "Toxicity Testings: Strategies to Determine Needs and Priorities." I am attaching a summary figure that demonstrates how deficient our knowledge is about the toxicity of chemicals in general.

And if you would look at the last page of the testimony, I believe there are copies of it up there for you, this is the figure I would like to draw your attention to: You would please examine the bottom three categories for chemicals in commerce.

These three groups encompass some 48,000 chemicals, and for 90 percent of these, either minimal or no toxicity information is available whatever.

If we focus on the findings of this report on neurobehavioral toxicity, things are particularly grim, because so few chemicals have been tested, neurobehavioral toxicity evaluation has emerged as one of the highest priority toxicity testing means in the world today.

Threshold limit values for occupational exposure are set by the American Conference of Governmental Industrial Hygienists. These values are established after the fact from human experience in the workplace and relatively infrequently upon laboratory toxicity studies.

Dr. W. Kent Angerer of the National Institute for Occupational Safety and Health reviewed the health effects cited upon which the 588 TLV's were set. I think you can see a table for this on the next to the last page of my testimony.

One hundred and sixty-seven, or 28 percent of these, were based on the preventive effects on the nervous system. If we are ultimately to rely upon behavioral and neurological complaints to set recommended exposure limit values, it is clearly inappropriate to continue to rely principally on workplace exposures for guidance when procedures do exist for identifying adverse neurobehavioral effects in laboratory animals.

The Toxic Substances Control Act, which has already been referred to this morning, is an appropriate vehicle for identifying and reducing the risks of adverse health effects resulting from chemical exposure.

This umbrella legislation embodies the authority to regulate or ban the use of chemicals, to require testing and take immediate action to reduce imminent hazards.

However, the law fails to recognize mankind's fundamental ignorance about chemical toxicity. Hazards need to be identified before reasonable standards can be set for occupational exposure or environmental release.

Given limited knowledge, substantial testing of all large-volume chemicals should be considered. Furthermore, since toxicology's ability to predict toxicity from chemical structure is primitive, indeed, some minimum testing of all new chemicals should be undertaken.

The National Institute for Occupational Safety and Health should take a more active role in identifying chemicals for evaluation under TSCA. Their participation is presently nominal. They should aggressively nominate chemicals for testing by the manufacturers.

The NIOSH intramural research efforts are intensively focused on testing of humans in the workplace, usually after the exposure has occurred. They should be actively encouraged to develop a balanced program incorporating laboratory studies with animals.

The National Toxicology Program should play a larger role in remedying our ignorance in this area. Should H.R. 1309 be enacted, section 6 will have a profound effect on the environmental health science centers.

These NIEHS centers are currently functioning as a funding cap that is eroding their strength and indirectly refusing the buying power of faculty research grants that assist identifying toxic hazards and understanding the mechanisms of toxic injury.

The American Psychological Association urges Congress to fine tune and reauthorize existing statutes, specifically TSCA, to achieve these ends. Senator Durenberger entered his legislation, S. 3075, in the 98th Congress, that addresses many of these problems, and strengthens TSCA by establishing the policy that the chemical industry has "a duty to be informed about the toxic effects of such chemical substances and mixtures, and to take appropriate actions to prevent exposures that might be harmful to human health or the environment."

We encourage you and your colleagues to introduce and work for the passage of similar legislation. And finally, we applaud your introduction of the High Risk Occupational Disease Notification and Prevention Act of 1985, and we want to thank you for this opportunity to testify on the important issue of neurobehavioral toxicity in the workplace.

I would be happy to answer any questions.

[The prepared statement of Ronald W. Wood follows:]

PREPARED STATEMENT OF RONALD W. WOOD, PH.D., ON BEHALF OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

Mr. Chairman, thank you for the opportunity to testify before this joint hearing on H.R. 1309, the "High Risk Occupational Disease Notification and Prevention Act of 1985." I am Dr. Ronald W. Wood, an Assistant Professor of Toxicology at the University of Rochester and Chairman of the Neurobehavioral Toxicity Test Standards Committe of the American Psychological Association's (APA) Psychopharmacology Division. I am testifying today on behalf of APA's more than 76,000 members.

As psychologists, we are especially sensitive to the serious consequences that substances in the workplace can have on the nervous system, including impairments of sensory and motor function, cognitive and intellectual performance, and emotional well-being. While we have known for years that workers handling toxic substances are at greater risk for physical illnesses, less attention has been paid to the extent to which chemical substances can have adverse effects upon psychological and neural functioning.

The various consequences of exposure to neurotoxic substances span the entire range of behavioral and neurological functioning. Some act mainly at the periphery of the nervous system where they are known to produce receptor or nerve cell damage leading to sensory dysfunction. Neurotoxic exposure may lead to permanent or temporary impairment of hearing, vision, touch, taste, or smell. Exposed individuals can become confused, disoriented, lose their ability to remember, fail to comprehend the world around them, or misunderstand the likely consequences of their behavior. Normal social and emotional reactions can be lost. Afflicted individuals may eventually take on the irrational behaviors and mental states of severe psychosis.

The occupational medicine literature contains many examples of these neurological effects. Carbon disulfide, a chemical used in the production of rayon, produces disorders of vision and nerve weakness, and may also increase the incidence of suicide. The effects of inorganic mercury are more subtle. Toxic exposure to mercury may cause its victims to withdraw from society, become "fidgety" and absentminded, and lead to a tendency to blush. The "Mad Hatter" of Alice in Wonderland, in fact, caricatured a common 19th century occupational malady resulting from mercury exposure in the workplace. I have personally observed these symptoms in workers exposed to toxic levels of mercury in a large glass factory in the United States. Local physicians had diagnosed the workers as neurotic and had prescribed tranquilizers.

In the case of mercury poisoning there is a substantial body of literature warning of the chemical's hazardous effects on the nervous system -- its "neurotoxicity." In cases that are so well documented, we are hopeful that an educational program aimed at primary health care providers can substantially reduce misdiagnoses and inappropriate treatment. But what of industrial chemicals without such well established histories? The Environmental Protection Agency (EPA) estimates that there may be as many as 50,000 different chemicals in use every day, and approximately 1,000 new chemicals are introduced every year. In spite of the potential harm these chemicals could cause to worker's psychological and neurological health, virtually none of these chemicals have been tested for neurotoxic effects before introduction into the workplace.

There is no doubt that toxic exposure to chemicals in the working environment can produce harmful neurotoxic effects. Currently, threshold limit values (TLVs) for occupational exposure to industrial chemicals are set by the American Conference of Governmental Industrial Hygienists. These values are established after-the-fact from human experience in the workplace, and only relatively infrequently are laboratory toxicity studies utilized. The National Institute of Occupational Safety and Health (NIOSH) reviewed the health effects upon which the 588 TLVs were set, and discovered that fully 167 (28%) of these values were set to avoid serious toxic effects on the nervous system (see appendix).

Mr. Chairman, we believe that it is inappropriate to rely solely upon adverse worker reactions to neurotoxic levels of chemicals, when procedures do exist to identify adverse neurobehavioral effects using laboratory animals.

A typical incident involving a new, untested industrial substance recently occurred in a Texas plastic bathtub manufacturing facility. Just two weeks after this new compound was introduced into the manufacturing process, workers began to complain of dizziness and odd physical sensations. The condition progressed, numbing first fingertips and toes, and then moving gradually up the arms and legs. After two months, workers complained of severe problems with color, peripheral, and night vision. Continued exposure to the toxic chemical compounded its effects. The disease progressed on to short-term memory loss, pain in the palms and soles, weakness, confusion, muscle spasms, stress incontinence, and decreased sexual interest. When more than a third of the exposed workers showed symptoms of toxic exposure to the new substance, the chemical was withdrawn from the process by the manufacturer, and no new cases emerged. Subsequent studies in animals demonstrated a pattern of severe injury to the nervous system. (A detailed case history is attached to this testimony.)

If we hope to avoid repeating such incidents in the future, it is time to take action. As you provide in H.R. 1309, the first step we need to take is to warn workers at increased or high risk of incurring disease of the imminent dangers they face. Notification and counseling are vital if workers hope to maintain their health and wellbeing. But, Mr. Chairman, testing new chemicals before they are introduced into the workplace to determine acceptable exposure levels would significantly reduce the risks of neurotoxic reactions by lessening worker exposure to known toxic levels of these substances.

Because so few chemicals have been tested, neurobehavioral toxicity evaluation should be a high priority for the Federal government in order to protect individuals in the workplace. A recent report of the National Academy of Sciences entitled "Toxicity Testing: Strategies to Determine Needs and Priorities," discovered that no adequate testing of neurobehavioral toxicity has been conducted of the industrial chemicals in their sample (see chart next page).

Testing needs for neurobehavioral toxicity
by use category (as percentage of select universe).
Excerpted from National Academy of Sciences Report

Intended use	Percent with no testing done	Percent of tests done that were inadequate
Pesticides	67	100
Cosmetics	100	no testing done
Drugs	47	88
Food Additives	73	100
Chemicals in Commerce		
Less than 1 million lbs	100	no testing done
More than 1 million lbs	90	100
Unknown	100	no testing done

We applaud your plans, Mr. Chairman, to enhance the role of the NIOSH Centers and National Institute of Environmental Health Sciences (NIEHS) Environmental Health Science Centers under section VI of H.R. 1309. These Centers are currently operating at limited funding levels that erode their strength, and indirectly reduce the buying power of faculty research grants that assist in identifying toxic hazards and help us to understand the mechanisms of toxic injury.

Mr. Chairman, I would like to add some thoughts on a current law that is of key importance to protecting worker health and safety. We support the reauthorization of the Toxic Substances Control Act (TSCA) as an appropriate vehicle for identifying and reducing the risks of adverse health effects resulting from chemical exposure. This "umbrella" legislation provides the authority to regulate the use of chemicals, to require testing, and to take immediate action to reduce imminent hazards. However, the law fails to recognize how little we know about chemical toxicity. Levels of neurotoxicity should be determined before standards are set for occupational exposure or environmental release of toxic substances. This is currently not the case. Given our limited knowledge, substantial testing of all large-volume chemicals should be considered. Furthermore, since toxicology's ability to predict toxicity based solely on that chemical's structure is primitive, some minimum testing of all new chemicals should be undertaken.

Again, we applaud your introduction of the High Risk Occupational Disease Notification and Prevention Act of 1985, and thank you for this opportunity to testify on the important issue of neurotoxicity in the workplace. I would be pleased to answer any questions that you may have.

APPENDIX

Tables from W.K. Anger: "Neurobehavioral Testing of Chemicals: Impact on Recommended Standards" Neurobehavioral Toxicology and Teratology, 6:147-153, 1984.

TABLE 1

BASES FOR 588 CHEMICALS CITED IN ACGIH TLV DOCUMENTATION

Basis		Number	Basis	Number
Irritation		430	No Low Toxicity	34
Eye	(130)		Safe Experience	30
Respiratory Tract	(68)		Cardiovascular System	29
Nose	(51)		Gastrointestinal Tract	22
Skin	(40)		Respiratory Tract	21
Lungs	(39)		Acute Toxicity at Low Levels	21
Throat	(37)		Eye	20
Mucous Membranes	(13)		Unclear/Unspecified Effects	18
GI Tract	(10)		Bone/Teeth	15
Unspecified	(8)		Reproductive System	12
Lacrimation	(4)		Flammability	12
Nervous System		146	Unpleasant Taste/Odor	12
Lung		117	Good IH Practices	11
Liver		95	Endocrine/Enzyme	9
Cancer		59	Judgment/No Information	7
Kidney		58	Teratogen/Mutagen	6
Skin		51	Body Accumulation/Clearance	6
Blood		40	Little Exposure Opportunity	1
Miscellaneous Effects		30	No Recommendation	1

TABLE 3

NEUROTOXIC EFFECTS REPORTED IN ACGIH DOCUMENTATION (THROUGH 1980) AND NUMBER OF CHEMICALS UNDER WHICH EACH EFFECT WAS IDENTIFIED

MOTOR		COGNITIVE		AFFECTIVE/ PERSONALITY	
General Motor		Alertness loss	1	Alcoh. intolerance	1
Activity changes	3	Judgment, impaired	1	Anxiety	4
Incoordination	10	Memory loss	3	Asthenia/Neurasthenia	2
Paralysis	9	Speech, slurred	1	Belligerence	1
Performance changes	4			Delirium	2
Pupil constriction	3	GENERAL CHANGES		Delusions	1
Rigidity	3	Analogy with other chemicals	23	Depression	4
Weakness	12			Disorientation	1
		Anorexia	15	Excitability	3
Abnormal Movement		Behavioral changes	3	Exhilaration	1
Ataxia	4	Cholinesterase inhib.	26	Giddiness	6
Chorea	1	CNS depression	30	Hallucinations	2
Convulsions, spasms	10	CNS edema	1	Inebriation	1
Gen. spastic	1	CNS stimulation	4	Insomnia	4
Movement disorders	1	Encephalopathy	1	Irritability	4
Nystagmus	2	Narcosis, Stupor	20	Lassitude, Lethargy	7
Tremor	19	Neuropathy, Neuritis	6	Laughter, uncontrollable	1
		Neurophysiological Electrophysiological changes	10	Malaise	2
SENSORY				Nervousness, Nervous disorders	11
Auditory disorders	4				
Equilibrium disorders, vertigo dizziness	20	Neurotoxicology	5	Psychological/Mental disorders	4
		Operant behavior changes	1		
Gustatory changes	5	Pathology, CNS/PNS	15	Psychosis	2
Olfactory changes	2	Psychic disturbances	2	Restlessness	1
Pain disorders (incl. anesthesia)	7	Unpleasant taste smell	12	Sleepiness	5
		Weariness, Fatigue, Lethargy	8	Vacillation	1
Pain, feeling of	2				
Sensation deficits	1				
Tactile disorders	5				
Vision disorders	12				
Visual sense organ pathology	21				

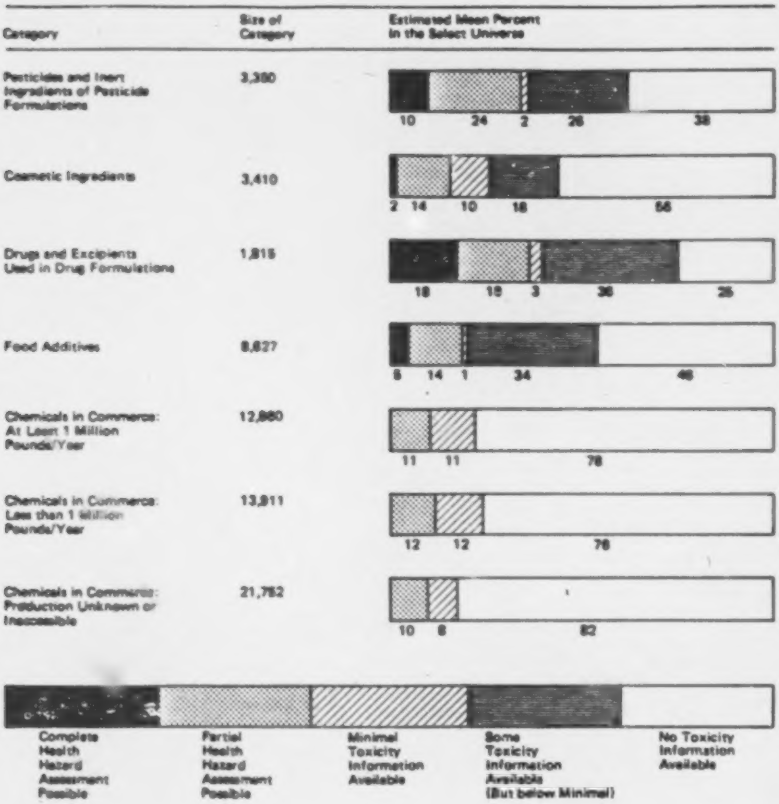

FIGURE 2 Ability to conduct health-hazard assessment of substances in seven categories of select universe.

Neurologic Dysfunction From Exposure to 2-t-Butylazo-2-Hydroxy-5-Methylhexane (BHMH): A New Occupational Neuropathy

John M. Horan, MD, Thomas L. Kurt, MD, MPH, Philip J. Landrigan, MD, MSc,
James M. Melius, MD, MMS, and Mitchell Singal, MD, MPH

Abstract: Seven cases of subacute central and peripheral neuro- ic dysfunction developed in 18 workers employed in the manufac- re of reinforced plastic bathtubs. Cases were characterized by ight loss, dizziness, paresthesias, muscle weakness, inconti- nce, memory loss, and loss of peripheral, color, and night vision. europathies began distally, involved both sensory and motor nction, and were associated with prolonged sensory latency, uscle fibrillation, and reduced numbers of functioning motor units. ne patient developed posterior lenticular cataracts. Slow improve- ent occurred on removal from exposure, but residual neuropathies rsisted for as long as two years. Epidemiologic investigation disclosed that the first case developed approximately two weeks after introduction of a new plastic foaming agent, 2-t-butylazo-2-hydroxy-5-methylhexane (BHMH). All cases occurred in workers exposed directly to BHMH. No new cases developed after use of BHMH was discontinued. A survey of the firm which produced BHMH and of 68 user firms found two additional clusters of mild neuropathy which may have been caused by BHMH. BHMH was withdrawn from distribution following discovery of these cases. Subsequently, BHMH has been shown in rats to be a potent neurotoxin. Adequate premarket testing could have averted this outbreak. (*Am J Public Health* 1985; 75:513–517.)

troduction

For centuries neuropathy and encephalopathy have een recognized consequences of overexposure to heavy etals such as lead,[1-3] arsenic,[4] and mercury.[5] Since the dvent of the chemical revolution,[6] a number of synthetic hemicals have also been found to exhibit neurotoxic prop- rties and have been responsible for outbreaks of neurologic isease,[7] the majority of them in industrial workers. Among hese newer neurotoxins are acrylamide[8]; carbon disul- ide[9-10]; dimethylaminopropionitrile (DMAPN)[11]; chlorde- one (Kepone)[12]; n-hexane[13]; methyl n-butyl ketone MBK)[14]; organophosphates such as parathion,[15] lepto- phos,[16] and tri-ortho cresyl phosphate (TOCP)[17]; styrene[18]; nd 2,4-dichlorophenoxyacetic acid (2,4-D).[19]

We describe here an outbreak of encephalopathy and peripheral neuropathy which occurred among workers at a mall plastics manufacturing plant. The affected workers had all been previously healthy, but developed central and peripheral neurologic dysfunction shortly after the introduction to the plant of a new foaming agent, 2-t-butylazo-2-hydroxy-5-methylhexane (BHMH). Although this compound has subsequently been shown in rats to be neurotoxic,[20,21] information describing its neurotoxicity was not available at the time of its commercial introduction.

Background

BHMH is an azo-substituted aliphatic hydrocarbon used in the manufacture of polyester-based plastics (Figure 1). It decomposes in the presence of polyester resin to produce free radicals which cross-link the resin, and it also releases bubbles of nitrogen which cause the resin to foam.[22-24]

Limited premarket evaluation of BHMH in rats and rabbits demonstrated acute dermal, conjunctival, and pulmonary toxicity.[25] In addition, tremors, subconvulsive jerking, and ataxia were noted in rats exposed by inhalation for one hour at a concentration of 20 mg/liter.[26] Ataxia was noted in rats exposed for one hour at 2.55 mg/liter.[26] Chronic tests were not performed. Nevertheless, information on BHMH distributed by its manufacturer did not warn of possible neurotoxicity.[27]

In September 1979, BHMH was introduced to the manufacture of reinforced plastic bathtubs in a newly designed plant in Lancaster, Texas near Dallas.[28] In the manufacturing process, layers of chopped fibrous glass, polyester resin, t-butyl perbenzoate, styrene, ethyl acetate, and either methyl ethyl ketone peroxide (MEKP) or BHMH were applied to a mold with a spray gun. Application took place in a ventilated booth. Ventilation was designed to maintain airborne concentrations of styrene vapor below 100 parts per million (ppm).

Between October and December 1979, three workers from the plant sought medical care for neurological symptoms and loss of weight. They did so through different physicians, and the possibility of a common-source outbreak was not immediately recognized. However, in September 1980, more than six months after last exposure to BHMH, the first three affected workers were referred for evaluation to one of the authors (TLK). Examination confirmed the presence of residual neurologic impairment in all three and prompted the subsequent investigation. Case histories of the first three affected workers are presented in the Appendix.

Methods

To determine the etiology of these cases of neurologic illness, we attempted to interview and examine all current and former workers at the Texas plant. Because plant management refused initially to provide a list of personnel, we began with interviews of the three previously identified workers; from them we compiled the names of other employees. We obtained information from each worker on job history, on extra-occupational exposures, and on use of personal protective equipment. Examinations were per-

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From the Division of Surveillance, Hazard Evaluations and Field Studies, National Institute for Occupational Safety and Health, Cincinnati (authors Horan, Landrigan, Melius, and Singal); and the Department of Internal Medicine, University of Texas Health Science Center, and the North Central Texas Poison Center, Parkland Memorial Hospital, Dallas (Kurt). Address reprint requests to Dr. John Horan, Centers for Disease Control, 1600 Clifton Rd., Atlanta, GA 30333. This paper, submitted to the Journal October 9, 1984, was revised and accepted for publication January 17, 1985.

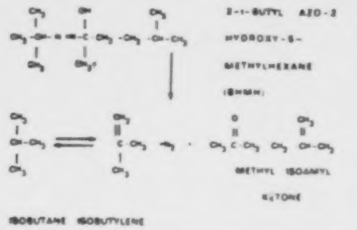

FIGURE 1—Structural Formulas and Spontaneous Decomposition Products of BHMH

formed by one of us (TLK) during and subsequent to September 1980 (five to six months after use of BHMH was discontinued). Patients who had objective evidence of motor or sensory deficits were evaluated electromyographically and ophthalmologically. A case was defined as a previously healthy person, exposed to BHMH, who developed all of the following abnormalities: 1) peripheral neuropathy, 2) impaired memory or concentration, and 3) visual disturbances (either impaired color vision, decreased peripheral vision, diplopia, or blurring).

Shortly after initiation of this study, the National Institute for Occupational Safety and Health (NIOSH) informed the manufacturer of BHMH of the preliminary findings. The manufacturer, in turn, notified all customers of the presumed hazard, subsequently withdrew BHMH from production, and provided NIOSH a list of all customers for the chemical.

To evaluate the possible occurrence of illness at other plants, NIOSH investigators mailed a questionnaire to the management of each company which had received BHMH seeking information on the volume and dates of BHMH use, and on the occurrence of any neurologic or other symptoms in exposed employees. Follow-up telephone interviews were conducted with managers of firms which reported symptoms. In addition, we conducted site visits and interviewed workers at the plant where BHMH had been produced and at the plant which (after the Texas plant) had used the largest volume of BHMH.

Results

Texas Plant

Workers at the Texas plant were able to recall the names of 20 current and former employees who had been exposed to BHMH. Eighteen agreed to be interviewed.

We found that seven of these workers had histories of illness which fulfilled our case definition (Table 1). All seven had evidence of residual neurologic impairment at the time of our investigation, six months or more after last exposure to BHMH. Three had abnormal electromyograms, and four had abnormal nerve conduction studies. One worker had decreased visual acuity, a posterior subcapsular cataract in the left lens, and subtle superior arcuate defects in the visual fields of both eyes.

Epidemiologic evaluation indicated that onset of symptoms in all seven cases occurred during the six months in which the plant had used BHMH.[20] No cases developed before or after that period (Figure 2). Onset of symptoms in the first case occurred approximately two weeks after introduction of BHMH. Five of the seven cases had onset during October and November 1979.

From September until mid-November 1979, workers in the spray booths were provided no protective gear (Figure 2). Second-hand clothing was worn at work and would be discarded after a few days' use due to accumulation of plastic accretions. Because BHMH did not produce severe skin irritation as did MEKP, the compound which it replaced, workers reported that they were unlikely to wash sprayed plastic containing BHMH off their skin. On at least two occasions a helper was reported to have been accidentally sprayed in the mouth with BHMH. No showering facilities were provided.

In November 1979, after appearance of disease in the index case, management issued a memorandum of caution to workers. Later in the same month, workers were provided for the first time with plastic coveralls (Figure 2). Beginning in January 1980, the use of organic vapor respirators was required. After March 1980, full protective gear was required in the spray booths and only supervisors were allowed to spray. Finally, in April 1980, use of BHMH was discontinued. The incidence of new cases was observed to decline as

TABLE 1—Clinical Findings in Workers Exposed to 2-t-Butylazo-2-Hydroxy-5-Methylhexane (BHMH) Lancaster, Texas

		Abnormalities			Dysfunction			
		(Physical Examination)			(Reported by Workers)			
Case #	Age/Sex	Sensory	Motor	Nerve Conduction	Visual	Ataxia	Bladder/ Bowel	Memory Loss
1	27 M	4+	4+	Abnormal	C/P/B	+	+	+
2	33 F	3+	4+	Abnormal	C/P/B	+	+	+
3	25 M	3+	4+	Abnormal	D/P/B	−	−	+
4	27 M	1½+	1+	Abnormal	P	−	−	+
5	20 M	1+	1+	Normal	B	−	−	+
6	28 F	1+	—	Normal	D/B	−	−	+
7	21 M	1+	1+	Not Done	D/B	−	−	+

Visual Changes
B—Blurring
C—Loss of Color Vision
D—Diplopia
P—Loss of Peripheral Vision

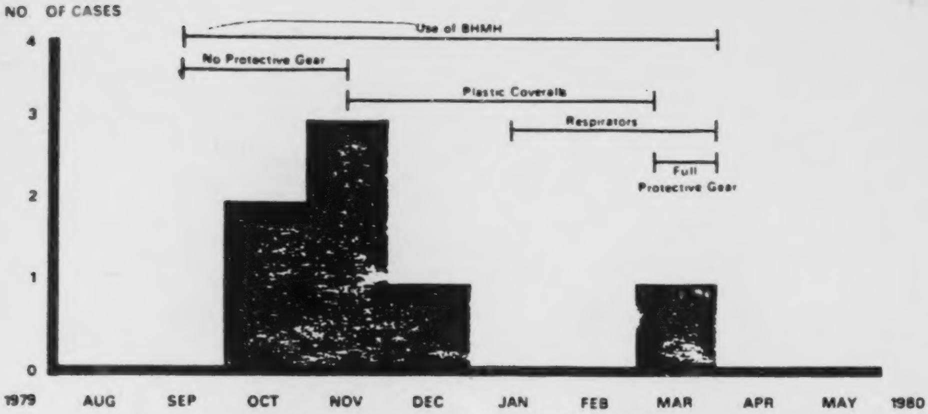

FIGURE 2—Cases of Neuropathy by Month of Onset—Plastics Plant, Texas, 1979–80

increasingly effective protective equipment was employed. The process consumed approximately 200 gallons of BHMH per month, or a total of 1,300 gallons. Thorough review revealed no use in the plant of other known neurotoxins, with the exception of styrene.

Six (86 per cent) of the seven cases occurred in spray gun operators or their assistants, and all seven patients had worked directly with BHMH for at least one month. By contrast, only three of 11 non-cases were spray-gun operators, and only six of the 11 non-cases had at least one month of direct exposure to BHMH.

With regard to protective equipment, five (71 per cent) of the seven cases reported that they sometimes or always worked without a respirator while using BHMH; by contrast, only four of the 11 non-cases worked without a respirator. Six of the seven cases reported that they sometimes or always failed to wear gloves while using BHMH; only five of the 11 non-cases failed occasionally or always to wear gloves.

The mean age of the seven cases was 26 years; and of the 11 non-cases, 27 years. Average duration of employment was nine months for cases compared to seven months for non-cases. Two of the seven cases and one of the 11 non-cases were female. None of the cases reported excessive use of alcohol, and there were no significant differences between cases and non-cases in consumption of alcohol or tobacco. No cases reported serious drug abuse; two reported occasional use of marijuana. None reported glue- or solvent-sniffing. No unusual extra-occupational exposures or significant exposures in prior employment to heavy metals, solvents, herbicides, or pesticides were reported.

Other Plants

The manufacturer of BHMH indicated that 86 plants had received the chemical. We were able to obtain information from 68 (79 per cent) of these firms. Most were small-volume customers.

Only one plant reported the occurrence of symptoms compatible with neuropathy. Two workers, both laboratory technicians, had noted transient paresthesias of the right hand after working with BHMH. Each had extensive prior experience with polyester resins and had not previously experienced similar symptoms.

We conducted a field survey at a plant which had used 370 gallons of BHMH in the manufacture of plastic swimming pools. This plant had used BHMH for only three hours per day, as contrasted with eight hours daily at the Texas plant. Partial protective gear, including organic vapor masks, was reported to have been provided to all exposed workers. Although management was aware of no problem, five workers—all members of spray teams—reported having experienced subtle sensory or motor symptoms after starting work with BHMH. Three of these five consented to physical examination; one had diminished deep tendon reflexes, but no other demonstrable abnormalities. Four additional workers, all of them spray gun operators, also underwent physical examination. Although none reported neurological symptoms, all four exhibited diminished deep tendon reflexes.

We also conducted a survey of workers at the plant where BHMH had been produced. This investigation revealed no manifestations of neurotoxicity. Production had taken place in an enclosed system operated by remote control, and opportunity for exposure appeared to be virtually non-existent.

Discussion

The data from this investigation indicate that BHMH was the agent responsible for the outbreak of neurologic disease in workers at the Texas plant. The first case occurred shortly after introduction of BHMH; symptoms were most severe in persons most heavily exposed; and the outbreak ended abruptly after use of the chemical was discontinued. Further, BHMH was the only new chemical in use in the spray process. Three other plants operated by the same manufacturer used the same materials as the Texas plant, except that they used methyl ethyl ketone peroxide (MEKP) rather than BHMH; workers in none of those other plants developed neurological disease. Finally, experimental animal studies conducted after this outbreak have demonstrated unequivocally the neurotoxic potential of BHMH.[20] Pathological findings in the exposed animals included: 1) loss of nerve fibers in the peripheral nerves and spinal cord; 2) degeneration of nerve fibers in the optic tracts; and 3) the development of lenticular cataracts.[20] These findings provide a rational explanation for the pattern of neurological dysfunction observed in the affected workers.

We considered the possibility that the neuropathy might have been due to styrene, a reported neurotoxin [18] which was in use at the Texas plant before, during, and after this episode. However, styrene neurotoxicity does not typically involve motor nerves.[29] Further, no neuropathies were reported in any of the three sister plants, each of which also used styrene.

Our data suggest that BHMH may have been responsible for episodes of neurologic dysfunction in workers exposed to the compound in two other plants. In each of those instances, symptoms developed after exposure to BHMH and occurred only in those workers most directly exposed; the relative mildness of these cases may reflect a shorter duration and lower intensity of exposure. An additional aggravating factor in the Texas plant may have been the concomitant exposure of workers there to other lipophilic compounds such as ethyl acetate; previous studies of the hexacarbon neuropathies have suggested that simultaneous exposure to methyl ethyl ketone (MEK) can potentiate the neurotoxicity of n-hexane and of MBK.[30,31]

BHMH appears to be the prototype of a new family of neurotoxic aliphatic hydrocarbon compounds. Although initial examination of its 6-carbon straight-chain structure might suggest that it is simply a congener of n-hexane with similar neurotoxic action, the decomposition products of BHMH (Figure 1) do not appear to include 2,5-hexanedione, the metabolic derivative of both n-hexane and of MBK which is the actual mediator of the neurotoxicity of those compounds.[32] Also, several features of the neurotoxic syndrome induced by BHMH, in particular the disturbances of vision and the formation of cataracts,[20] are not found in the usual hexacarbon neuropathies. The mechanism by which BHMH exerts its neurotoxicity is not yet known and will require further investigation.

The tragic lesson of this epidemic is that it could have been prevented by adequate premarket evaluation of BHMH. Premarket testing is the most effective means of assessing the toxicity of new chemicals compounds. However, until passage of the Toxic Substances Control Act (TSCA) in 1976,[33] there was no legal mechanism in the United States for prospective evaluation of the neurotoxicity of new industrial compounds. Even since passage of TSCA, inadequacies in testing requirements remain. Many thousands of potentially neurotoxic compounds whose introduction to commerce antedated passage of the Act remain untested,[34] and there are no requirements at present for testing such compounds; these compounds, BHMH among them, were simply registered with the US Environmental Protection Agency (EPA) and were added by EPA to the TSCA Inventory. Also testing procedures for new industrial compounds have not been standardized; responsibility for deciding whether or not to test a new chemical and for development of testing protocols is left almost entirely to the discretion of chemical manufacturers. Governmental review of the toxic potential of new chemicals consists typically only of examination of their structural formulae.

Although testing of BHMH for acute toxicity demonstrated ataxia, tremors, and possible convulsions in exposed rats,[25,26] the manufacturer apparently did not consider the compound to be neurotoxic on the basis of those results and did not warn users of potential neurotoxicity.[27] Also no chronic testing of the compound was performed. The severe neurologic damage incurred by the workers who were exposed to BHMH provides an object lesson of the inadequacies of our present premarket testing procedures.

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APPENDIX

Case Histories

Case #1

This 27-year-old Black male was the first employee to use BHMH. He wore no protective clothing, and his forearms and feet were usually covered with accretions of foam spray. Neurological illness began in October 1979, two weeks after the beginning of work with BHMH. He complained of pain in his palms and soles, extremity weakness, ataxia, diminished night and color vision, and shooting pains and muscular spasms in his back. He also experienced a weak and dribbling urinary stream, decreased sexual interest, flatulence, diarrhea, and unintentional weight loss of 40 pounds.

Sensory examination in September 1980 revealed selective, symmetrical distal extremity dysfunction: fingers and toes were dysesthetic; there was decreased sensation to pinprick; patellar, biceps, and ankle jerks were absent; and there was loss of proprioception. Vibration sensation was unimpaired. Babinski and Hoffman signs were absent. Heel-to-shin ataxia was evident. Motor weakness was marked, more severe distally than proximally, and most pronounced in the lower extremities. There was euphoria and decreased learning ability. Electrodiagnostic studies were performed 11 months after last exposure to BHMH. Sensory nerve conduction was unobtainable in left ulnar and sural nerves. Motor nerve conduction velocity was 47.2 m/sec in the ulnar nerve and 35.8 m/sec in the peroneal nerve; motor latency was 3.3 msec in the ulnar nerve and 4.7 msec in the peroneal nerve. Positive waves were absent from the electromyogram.

Follow-up examinations over a two-year period demonstrated slow recovery of body weight, partial return of motor strength proximally and then distally, and resolution of sexual dysfunction. Residual problems were mild-to-moderate weakness in lower extremities, worse at the end of the day, aching pains and spasms in the lower back, reduced strength in the hands and slight ataxia.

Case #2

This 33-year-old White female was supervisor of the BHMH production line. She had no known prior exposure to neurotoxins, except for brief exposure to BHMH during a pilot run conducted four months before formal introduction of BHMH to the process. In October 1979, after approximately two weeks of work on the production line, she experienced dizziness and subsequently reported sensations of feeling as though she were in a roller-coaster when traveling in a car. Over the ensuing weeks and months, she developed numbness of fingertips and then toes, which subsequently traveled up the extremities. After two months, there was difficulty with color and lateral vision. She continued working with BHMH for approximately eight months. During this period, she lost 10 pounds, had decreased and irregular menses, severe stress incontinence, and nasal drainage, in addition to sensorimotor polyneuropathy, ataxia and short-term memory loss. Limb weakness was more evident on the left and in the upper extremities. Cataracts developed in both eyes; there was no history of diabetes, use of corticosteroids or birth control pills.

Her neuropathy improved after cessation of exposure to BHMH, and seven months later she complained only of numbness in the tips of fingers and toes, and aching pains in the hands. Sensory examination at that time revealed decreased perception of light touch and pinprick in the distal extremities, sluggish reflexes on the left side, especially the upper extremity, and normal vibration and position sense. Babinski and Hoffman reflexes were absent. Motor weakness was moderate to severe and most prominent in the left upper extremity.

Case #3

This 25 year-old White male began working at the plant in summer 1979. Within several months he was transferred to spray gun work in the BHMH spray booth, replacing another employee (Case #2) who had become ill while working there. After a few weeks he began to notice numbness of his feet and dizziness. He requested a transfer back to his previous work, and his symptoms gradually resolved. In January 1980, the plant began using BHMH foam spray in two spray booths, and he was again assigned to spraying. Within several weeks he had developed a 25-pound weight loss and was experiencing weakness and numbness of his hands and arms, difficulty in remembering and concentrating, impaired color vision (mainly difficulty in distinguishing blues and reds), and loss of peripheral vision. He was referred to a neurologist who diagnosed a severe and possibly irreversible peripheral neuropathy, probably related to chemical exposures at work. The neurologist sent copies of his reports to the plant management, and shortly thereafter they discontinued use of BHMH.

In September 1980 the patient was referred to a medical toxicologist. Physical examination revealed weakness of the wrist extensors bilaterally and severe wasting and weakness of the intrinsic muscles of both hands. Deep tendon reflexes were absent in both upper limbs and were diminished symmetrically in both lower limbs. Sensory examination revealed diminution of pinprick sensation in both hands. Ophthalmologic evaluation, including color vision testing with HRR plates and Goldmann visual field testing, was normal.

Electromyographic evaluation of involved limb muscles revealed decreased numbers of motor units and polyphasicity. Nerve conduction studies showed modestly increased latencies (3.7 msec, 6.0 msec, 4.1 msec) for the left median, left peroneal, and right sural nerves respectively, and mildly slowed conduction velocity for the left peroneal nerve (42.5 m/sec). Follow-up examination, conducted five months later, showed some improvement; latencies in the same three nerves were 3.4 msec, 6.0 msec, and 3.8 msec, respectively, and conduction velocity for the left peroneal nerve was 45.1 m/sec.

Mr. Gaydos. Doctor, thank you for a fine presentation.

Let me ask this one question: I think you are suggesting, in no uncertain terms, a testing procedure for new substances and other procedures in the workplace. It would somewhat parallel the system used by the existing Food and Drug Administration, where they test and approve new prescription drugs and medicines before permitting their sale on the market.

That is just about what you are saying, aren't you?

Mr. Wood. Yes; there is existing authority for doing this now under the Toxic Substances Control Act. Of course, under the present administration, there has been a certain unwillingness to vigorously pursue toxicologic investigations which would assist in improving our knowledge about the adverse health effects of chemicals.

And Senator Durenberger's proposal would essentially remove some of the discretion from the agency by setting a volume trigger for the initiation of testing of large volume chemicals, and would require some minimal premarket testing of new chemicals, much like the European Community currently does require.

The Organization for Economic Cooperation and Development has a policy of requiring a minimum set of tests on all new chemicals before they are introduced into international commerce in Europe.

Mr. Gaydos. Well, I would agree with that comparison and maybe that approach, but aren't we being very impractical? You know, we are talking about the drug industry, you are talking about big money involved.

And you know the repeat stories in the newspapers, headlines, and how elongated all those suits are. They sue for years and have international problems involved with them, and locally—everything that seems to have gone wrong does go wrong as far as the Food and Drug Administration is concerned. A lot of trouble in there.

Now, here we are on this piece of legislation and if we do what you suggest, I think we are going to end up in the same situation as they are, and I am not saying that is it not worth it, I am just saying that we are trying to be practical in this legislation.

Mr. Wood. Well, there are some important differences between testing drugs and——

Mr. Gaydos. Spread them on the record. I would like to hear them.

Mr. Wood. When you test drugs, you are trying to decide whether a chemical is safe for human ingestion. When you test a chemical, you want to identify whether the chemical has a hazard.

Mr. Gaydos. Same problem, isn't it?

Mr. Wood. Well, not really, because you are designing something to be ingested in one case; and in the other case, ingestion——

Mr. Gaydos. You would ingest it one way or another. You are working with it, aren't you?

Mr. Wood. Well, and dose certainly makes the poison. The question is, What kind of a dose can you tolerate and not have adverse health effects? And we first need to identify what those adverse health effects are, and we have procedures for doing that in animals.

And you can have great insights into what the spectrum of toxic effects are going to be with relatively inexpensive first looks. We are not talking about the $8 to $20 million investment for each of the $60,000 chemicals that you might expect.

But certainly, that is why the notion of the volume trigger is so important, because if you set the volume trigger very high, then the additional cost of doing fairly comprehensive evaluation of the toxicity of a compound would have a negligible impact on the retail cost of the chemical.

And we certainly do think that that is where the costs for those kinds of investigations should lie, on the normal marketplace activities associated with the use of the chemical.

Mr. GAYDOS. Doctor, with all these scientific and medical terms, and what they signify, what they mean, do you think it is practical in this bill to provide for a procedure whereby a worker would call a certain area up and talk to maybe a fellow like you, or maybe not as——

Mr. WOOD. Well, I——

Mr. GAYDOS. I mean, could you get back to them? Would you just hear me out? Could you get back to them? Could you explain to them? Would it be a worthwhile service? Do you think you would call? Do you think they would understand if you told him that he is working with something hazardous, you go on to an elongated explanation?

What do you think would be the practical aspect of that? Do you think we should do that? Do you think that is essential that we do that?

Mr. WOOD. I think it is very important to provide counseling to people. My eyebrows went very far up on my forehead when I saw the National Institute of Environmental Health Sciences Centers were going to be primary referral sites under this, because of the cap which currently exists on their funding.

Half of my salary is derived from such a center, and a small proportion of my salary rests against that award because of the cap, now the committee proposed putting additional responsibilities on our group without explicitly saying where the funds will come from to provide these services, and I have some consternations.

However, when I showed this to my colleagues at the University of Rochester, there was great interest in this, and we scurried to the dean and said, "Well, we really ought to be prepared to deal with such legislation and expand our interest into the workplace to a greater extent, so that we could deal with such a request should Congress make it."

And I think that the university community would be more than willing to come to the assistance of the worker in this context, but we certainly have to have the means to do it.

So an increased level of appropriation for both the NIOSH and the NIEHS centers would be greatly appreciated.

Mr. GAYDOS. When we deal with legislation, we have got to be very practical here. Mr. Hayes from Chicago and myself from Pittsburgh, it is a self-serving declaration. We consider ourselves reasonable men. And you know, it is pretty difficult to wade through some of the papers that you experts prepare for us.

You know, you have to spend a lot of time. I always wonder at times as to whether or not we are practical down here when we are talking about workers in the field, and they be notified of the hazardous condition or potentially hazardous—and then they call somebody on the hotline, they talk to them—I don't know whether they get through to them or whether it would be more confusing and more frustrating or whether—you know, we had the coal miners—I have to go back—we had the coal miners on pneumoconiosis before this committee, and do you know that the coal miners would not take an x ray, because even though they worked at the face of a coal mining operation, they wouldn't take an x ray because they were afraid, inherently afraid that the x ray would show something wrong with them physiologically.

And if that occurred, then they wouldn't be able to work. That was their concept. And they avoided those x rays like the plague. "We ain't going to go near them." Even today they do the same thing, when we talked about changing work positions and things like that.

I think maybe a lot of our professionals, even we down here in the committee after we are away from people for a long time, being we are exposed to this method of operation. We kind of forget, or don't understand the inherent fear of people that have family obligations and how they don't want anyone disturbing in the least their ability to make a livelihood, regardless if it is dangerous or not.

They wouldn't be there in the first place, and that is what bothers me, my sensitivities on the committee, that I know that frailty of human nature, that one aspect of it. They just don't want anybody bothering them, they don't want to get these notices, and it doesn't frustrate them, which I raised the question with our prior professional, but they won't react, they don't respond.

I don't think they would answer a call on the hotline. It is like a person doesn't go to a doctor, because they are afraid the doctor is going to tell them, "You have a touch of tuberculosis or something, or you have high blood pressure," or something like that. They don't want to get the bad news.

Do you find that typical?

Mr. WOOD. I suggest that you could find out how well the hotline works by putting one in place.

Mr. GAYDOS. You say take a crack at it.

Mr. WOOD. I think it would be worth a crack, yes.

Mr. GAYDOS. What about the funding of this thing here? I know that you wouldn't be fundamentally interested in how we are going to fund it, because that is our problem, but how would you fund this?

If someone thrusted upon your shoulders, "Doctor, now you have been around here, you are practical, you have got a family budget, how are you going to fund this thing?" Slap it on the employers again?

Mr. WOOD. I would prefer to put it on the cost of business on handling chemicals rather than on the individual employer. That would be my personal feeling. But this is a——

Mr. GAYDOS. I am interested in hearing you, so don't be hesitant. I am interested in hearing different concepts on how you do——

Mr. Wood. I would prefer to attach such costs to the cost of moving chemicals in commerce, as opposed to the particular employer using the chemical. The distinction is clear.

Mr. Gaydos. You and I, the consumer, would pay for it, right?

Mr. Wood. We would pay for it. Well, that is true. We pay for everything. There is no question that——

Mr. Gaydos. Counsel asked the question, would it be in the concept of a value-added tax? I don't think you meant that, did you?

Mr. Wood. This is beyond my sphere of confidence. I think I would prefer to——

Mr. Gaydos. It was beyond our sphere——

Mr. Wood [continuing]. Use the model that——

Mr. Gaydos. This is not the Ways and Means Committee.

Mr. Wood. Use the model that Congress suggested for the Toxic Substances Control Act, I think would be a good example.

Mr. Gaydos. Do you have a real concern, Doctor, really real concern, that the inaction of Congress is creating bedlam out there, and that there are an awful lot of people working and dying early in life, and that it is one of the most sensitive subject matters that this Congress can address?

Do you really share that opinion with us, or do you think we can, oh, mask it a little bit, and go on with another 50 or 100 years, like we have done the last 200 years?

Mr. Wood. Well——

Mr. Gaydos. Is it a vital concern to you? Do you think it is a vital concern?

Mr. Wood. I am very sympathetic with your feelings about Congress as the bad boys not protecting the public health, but I think there is more fear about chemicals than there is inaction in Congress.

Mr. Gaydos. Mr. Hayes.

Mr. Hayes. I just have one question just to clear my own mind as a member of this committee. Am I correct, Professor, in concluding that you are supportive of 1309 in part, but the bill doesn't go far enough?

Mr. Wood. Well, I think it is a fine first step. I think that there needs to be a coordination reexamination of laws in this country which deal with chemicals, including the Toxic Substances Control Act.

I understand that the Toxic Substances Control Act is not in the purview of this committee, but as a previous speaker has indicated, this is an extremely important piece of legislation, which could mesh quite well with H.R. 1309, and I would encourage this committee to examine the interrelationships between these two acts, and put them to maximum advantage.

Mr. Hayes. I notice you say in your statement, notification and counsel and advise if workers hope to maintain their health and well-being. But, Mr. Chairman, testing new chemicals before they are introduced in the workplace to determine acceptable levels would significantly reduce the risk of neurotoxic reactions by less than workers exposed to toxic levels of these substances.

So you are saying that you think there ought to be some testing of new chemicals before they are introduced?

Mr. Wood. Absolutely. Absolutely. No question——

Mr. HAYES. Are you saying this should be provided in the legislation?

Mr. WOOD. Not in H.R. 1309, I don't think so. I think TSCA will provide that activity when and if it is reauthorized, and fine tuned.

Mr. HAYES. Thank you. I just wanted to understand clearly.

Mr. GAYDOS. All right, Doctor.

Which one of our other panel members would like to take over now? Ms. Babbitz?

Ms. BABBITZ. Yes, I am Matilda Babbitz, I am the executive director of the American Association of Occupational Health Nurses. To give you some background, I am an occupational health nurse, a registered nurse. I provide health care in a plant setting. I am certified in occupational health nursing, and have a master's degree in occupational safety and health.

I have taught occupational health at the university level, and have served as a consultant for the State of South Carolina in occupational health. I feel that I have a broad background in the field, and would like to bring to the committee the perspective of professional occupational health nurses.

Perhaps I would like to start, if I may, Mr. Chairman, by responding to a question that you put to the last speaker. I see the occupational health setting as the future of health care in the United States.

We constantly hear about costs of health care. We are dealing with DRG's and PPO's and all sorts of things like that. In the occupational setting, we have the workers who are healthy, and if we provide appropriate preventive health care to those workers, we will eliminate the disease that we have to deal with in our older populations.

And given that little aside, I would like to present the official statement of the association. The American Association of Occupational Health Nurses is the professional association for nearly 12,000 registered nurses who provide on-the-job health care for America's working men and women.

Occupational health nurses develop, promote, and manage health programs that contribute significantly to the prevention of illness and injury and the ability of workers to maintain good health.

The association has reviewed the H.R. 1309, and would like to comment on four specific areas of concern. The first is research. Occupational health nurses are committed to the concept of conserving, promoting, and restoring the health of workers.

While many of our nursing colleagues and most of our medical colleagues are concerned with the treatment of illness, occupational health nurses are primarily concerned with the prevention of illness and injury.

And AAOHN believes that a bill designed to assist workers at high risk of developing occupational disease should go beyond establishing a system for research into medical monitoring and surveillance of employees exposed to occupational hazards, it should support research into methods of preventing development of occupational disease.

We are, therefore, advocating primary prevention. I think if we don't do that, we will be sitting here 20 years from now talking about methods of notification, of the 20-year-old workers of today who are being exposed, and how are going to notify those people.

I think the concept of research and prevention is essential.

The bill addresses the concept of research to identify populations at risk; it does not go far enough to support research intended to help prevent disease from developing. Please don't ask me how to fund it.

Mr. GAYDOS. Let me ask you something at that point.

Ms. BABBITZ. Yes?

Mr. GAYDOS. I just want to get the record clear, so that I understand it, at least.

Ms. BABBITZ. OK.

Mr. GAYDOS. How would an occupational nurse be in the preventive end of disease? I can understand they treat.

Ms. BABBITZ. No, because the main responsibility of an occupational nurse is to prevent the employees exposed to hazards, and if there is a chemical in the workplace, then it is that nurse's responsibility to see that the company has proper engineering controls, or as a second choice, personal preventive equipment.

So that employee is not exposed to begin with, and then you don't have the development of disease.

Mr. GAYDOS. I can't understand the concept, because having been formerly in my young days, when I was going to college working in the factories around the Chicago and Pittsburgh areas, I never had that concept of an occupational nurse——

Ms. BABBITZ. Well, see, Mr. Chairman, the concept has changed dramatically in recent years. Nurses are——

Mr. GAYDOS. Do I look that old?

Ms. BABBITZ. No, sorry.

I think nursing has changed. I think nurses are educated at the university level, and they are educated in assessment skills, how to assess the health of employees, and how to assess the environment.

The association sees that as a primary responsibility of the occupational health nurse, to prevent injury and illness.

Mr. GAYDOS. Counsel mentions it is almost in the area of an industrial hygienist. You see, the concept must have changed drastically, because it is not my concept that that is what their duties are, that is what they do.

I didn't—it is a revelation to me, to be very frank with you.

Ms. BABBITZ. It has changed, Mr. Chairman. If you think historically, companies hired occupational health nurses when workers' comp laws started to be passed. And initially, their responsibilities were to patch up the injured worker, and to fulfill the employer's responsibility under the workers' comp laws.

But the field of nursing has changed. Occupational health nursing has emerged as a specialty within nursing, and I can't emphasize enough that we see our primary—we see the worker as our client, although most nurses are indeed employed by industry; the worker is the basic client from an ethical point of view.

And it is part of the nurse's job to market, if you will, a preventive program to management.

To get back a little but to what you are saying, if you look at some of the data in our statement, there are many, many companies, in fact, more companies where the nurse is the only health professional.

There is not an industrial hygienist on site, so the nurse has to know industrial hygiene. The nurse has to know safety. As an occupational health nurse, I did a plant tour every single day that I worked in a plant, to look for new chemicals, to look for new processes, to try to avoid development of illness and injury by the employees who were my responsibility.

Mr. GAYDOS. Let me ask you one final question on that point, because I know you have a lot to cover in there.

An R.N. then goes on to specialized training before she has the occupational health nurse's certificate; is that right?

Ms. BABBITZ. No, I wish it were right, but it is not. When I mentioned certification in occupational health nursing, that is an affiliated association, it is affiliated with our association.

Mr. GAYDOS. And we have R.N.'s that are working in various businesses and——

Ms. BABBITZ. Yes, we are. We have R.N.'s that do not have occupational health background. One of the major missions of the association is to provide continuing education to those R.N.'s in the specifics of occupational health nursing. That is our major activity.

If you want to talk about the ERC's and NIOSH funding for nursing education, we believe that it is not directed where it needs to be; that while we need some Master's-prepared occupational health nurses, there is a wide body of occupational health nurses practicing who need some of that NIOSH funding to go back to school.

Most of our members are prepared at the diploma and associate degree level. They need to upgrade their skills to the baccalaureate level, to be certified, and then go on to the Master's.

Mr. GAYDOS. May I make one promise? You help us with our problems on the floor, I will help you with your problem.

Ms. BABBITZ. That is a deal. That is perfectly OK. I am delighted to have this opportunity.

The second area of concern that the association has, and you may not be as happy with this one, is the composition of the Risk Assessment Board.

When the Hazard Communication Standard was issued in 1983, the Department of Labor defined health professional in the Trade Secrets Section of the Standard as, "Epidemiologists, toxicologists, industrial hygienists, and physicians."

We submit that the most prevalent health profession in occupational health, the one that provides the most health care to workers is missing from both the Hazard Communication Standard and the proposed Risk Assessment Board.

I was interested to hear one of the previous groups testify that they thought that the Board should not come from HHS but that should be expanded, and we would certainly support that concept.

AAOHN, supported by other nursing associations and a variety of colleagues in the health professions, publicly protested the omission of professional nurses from the definition of health professionals.

Part of that protest was the letter-writing campaign to Members of Congress. Many Members of both Houses expressed concern about the omission of registered nurses from an official U.S. Government definition of health professionals.

In fact, members of the House Appropriations Labor, Health and Human Services Subcommittee questioned Patrick R. Tyson, then as now Deputy Assistant Secretary of Labor for OSHA, and Acting Assistant Secretary for OSHA.

Mr. Tyson stated in part, "To a certain extent, we owe an apology to the occupational health nurses, because the implication in the final standard was that they were not professionals."

In light of our experience with OSHA, AAOHN is gravely concerned that Congress, in this bill, proposes to perpetuate a grievous error by omitting registered nurses, the largest single group of professionals providing health care in the work setting, from membership on the Risk Assessment Board.

A research project conducted jointly by AAOHN and the Schering Corp. surveyed association members. The result was the profile of occupational health nursing which indicates, in part, the following:

In most instances, occupational health nurses are the only onsite health professionals; 52 percent of AAOHN members practice without onsite physicians. And by that, Mr. Chairman, we mean the physicians never enter the work site.

In most instances, occupational health nurses have management responsibilities for occupational health programs; 76 percent of AAOHN members report that they have input into management decisionmaking.

In most instances, occupational health nurses routinely conduct medical surveillance of employees at risk; 56 percent of the AAOHN members report that they are responsible for medical surveillance, as required by OSHA standards.

AAOHN believes that the exclusion of nurses from the Risk Assessment Board would impair the effectiveness of that body by excluding an invaluable perspective on occupational health problems.

More importantly, this omission works against the best efforts of occupational health nurses to protect the health and safety of their worker clients.

Our third area of concern deals with notification and counseling, and we have heard a lot about that today. Again, our survey states that occupational health nurses spend approximately 28 percent of their time counseling employees, and another 12 percent in the closely related activity of health education.

And in answer again to your question to a previous speaker, I would strongly recommend that when hotlines are established, occupational health nurses be at the other end of that hotline.

They are used to dealing on a 1-to-1 basis with the workers. They have an extremely good rapport with workers. In fact, many workers consider occupational health nurses to be their family health advisor.

And again, I can tell you that from my personal experience, because again, as a previous speaker said, many workers do not have family doctors anymore. So that we believe that the counseling is a crucial activity and should go much further than a hotline, and that if you are going to have centers at ERC's and other places, that somehow you find the funding and have occupational health nurses on site to provide counseling to workers and families.

I think this is a crucial part of the notification to workers. You can't just notify them and leave them hanging. You have to counsel them. I think it would be very unfair not to do that.

Mr. GAYDOS. Do you know what one of my great concerns personally would be with the hotline theory? I wonder and worry about the malpractice potential involved. Who is going to pay and provide the malpractice coverage? Is it expensive?

We have doctors leaving active professions because their insurance bill for the particular year is $60,000 to $70,000. I have a very close friend of mine that is packing up and leaving a particular geographical area because the insurance is so high.

Ms. BABBITZ. Yes, that is a real concern. We have a group policy for nurses through the association, which is relatively inexpensive.

I couldn't give you a definitive answer. I would have to have attorneys and our insurance people look at it. But it seems to me that this would be part of a normal practice, in that they would be covered under that group policy, but I would not, not being an attorney or an insurance expert, I would have to guess.

Mr. GAYDOS. I would say that would be problem. At least it creates the problem in my mind. And I might be way off base.

Ms. BABBITZ. Well, I think——

Mr. GAYDOS. A lot of technical things, whether you are practicing medicine and things like that.

Ms. BABBITZ. Well, that——

Mr. GAYDOS. Once you start enlarging jurisdiction, then you are going to start running into problems like that. Because some clever attorney always has a way of twisting things around and delving into the minute aspects of a problem, and coming up with a substantial reason for a lawsuit of some sort.

Ms. BABBITZ. It is my understanding, Mr. Chairman, that most State nurse practice acts specifically identify counseling as an independent nursing function. Again I have to say most, because there are 50 different State nurse practice acts.

Mr. GAYDOS. I just wondered. Sorry to interrupt you.

Ms. BABBITZ. That is fine.

Finally, I just wanted to touch again upon the use of terminology, medical monitoring. As previously stated, 56 percent of practicing occupational health nurses are responsible for medical surveillance as required by OSHA standards.

In addition, AAOHN believes strongly that all those who work in this field, as well as Members of the Congress, should emphasize prevention of occupational disease. As a result, we ask that you consider changing the terminology from medical monitoring surveillance to health monitoring surveillance.

In other words, giving the emphasis on maintaining healthy workers.

Finally, within the last 3 months, OSHA has, on two separate occasions, requested consultation from AAOHN on language relating to nursing for use in proposed health standards.

While the association is pleased to provide this service to the Department of Labor, we believe that AAOHN's recent contributions reinforce our position that occupational health nursing expertise is crucial in the development of all national policy concerning occupational health and safety.

We hope that Congress will not compound previous errors by excluding professional nurses from the high risk occupational disease bill.

The American Association of Occupational Health Nurses appreciates the opportunity to comment on the high risk occupational disease bill, and urges members of the subcommittee to give serious consideration to our comments.

Thank you, Mr. Chairman. I would be pleased to answer any additional questions you might have.

[The prepared statement of Matilda Babbitz follows:]

PREPARED STATEMENT OF MATILDA BABBITZ ON BEHALF OF THE AMERICAN ASSOCIATION OF OCCUPATIONAL HEALTH NURSES, INC.

The American Association of Occupational Health Nurses is the professional association for nearly 12,000 registered nurses who provide on-the-job health care for America's working men and women.

Occupational health nurses develop, promote and manage health programs that contribute significantly to the prevention of illness and injury and the ability of workers to maintain good health.

After reviewing the High Risk Occupational Disease Bill (H.R. 1309), AAOHN has prepared comments on four specific areas of concern:

1. RESEARCH

Occupational health nurses are committed to the concept of conserving, promoting and restoring the health of workers. While many of our nursing colleagues and most of our medical colleagues are concerned with the treatment of illness, occupational health nurses are primarily concerned with the prevention of illness and injury. AAOHN believes that a bill designed to assist workers at "high risk" of developing occupational disease should go beyond establishing a system for research into medical monitoring and surveillance of employees exposed to occupational hazards; it should support research into methods of preventing development of occupational disease. In other words, we are advocating primary prevention.

While the bill addresses the concept of research to identify populations at risk, it does not go far enough to support research intended to help prevent disease from developing among those populations so identified.

2. RISK ASSESSMENT BOARD

AAOHN is concerned about the composition of the Risk Assessment Board. When the Hazard Communication Standard was issued in 1983, the Department of Labor defined "health professional" in the trade secrets section of the standard as "epidemiologist, toxicologist, industrial hygienist and physician." The proposed membership of the Risk Assessment Board is restricted to the same four categories of health professionals listed in the Hazard Communication Standard.

AAOHN, supported by other nursing associations and a variety of colleagues in the health professions, publicly protested the omission of professional nurses from the definition of health professional. Part of that protest was a letter-writing campaign to members of Congress. Many members of both Houses expressed concern about the omission of registered nurses from an official U.S. government definition of health professional. In fact, members of the House Appropriations Labor Health and Human Services Subcommittee questioned Patrick R. Tyson, Deputy Assistant Secretary of Labor for OSHA, about the issue when he testified before them in 1984. Mr. Tyson stated in part:

> To a certain extent, we owe an apology to the occupational health nurses because the implication in the final standard was that they were not professionals.

In light of our experience with OSHA, AAOHN is gravely concerned that Congress, in this bill, proposes to perpetuate a grievous error by omitting registered nurses, the largest single group of professionals providing health care in the work setting, from membership on the Risk Assessment Board.

A research project, conducted jointly by AAOHN and the Schering Corporation, surveyed Association members. The result was a profile of occupational health nursing, which indicates the following:

-- In most instances, occupational health nurses are the only on-site health professionals. Fifty-two percent of AAOHN members practice without on-site physicians.

-- In most instances, occupational health nurses have management responsibilities for occupational health programs. Seventy-six percent of AAOHN members report that they have input into management decision making.

-- In most instances, occupational health nurses routinely conduct medical surveillance of employees at risk. Fifty-six percent of AAOHN members report that they are responsible for medical surveillance as required by OSHA standards.

AAOHN believes that the exclusion of nurses from the Risk Assessment Board would impair the effectiveness of that body by excluding an invaluable prospective on occupational health problems. More importantly, this omission works against the best efforts of occupational health nurses to protect the health and safety of their worker clients.

3. NOTIFICATION AND COUNSELING (Section 5)

The bill requires the Secretary to include "counseling information appropriate to the level of risk" in the notification to individuals within a population at risk. The proposed legislation contains no indication of how this is to be achieved. Counseling, by its very nature, is a one-to-one, in person activity. The previously identified survey showed that occupational health nurses spend approximately 28 percent of their time counseling employees and another 12 percent in the closely related activity of health education. Since counseling is a critically important activity to be conducted under the bill's authority, AAOHN believes that a great deal more thought should be given to the mechanism for counseling workers at risk.

4. MEDICAL MONITORING

As previously stated, 56 percent of practicing occupational health nurses are responsible for medical surveillance as required by OSHA standards. In addition, AAOHN believes strongly that all those who work in this field, as well as members of the United States Congress should emphasize prevention of occupational disease. As a result, we ask that you consider changing the terminology from "medical monitoring/surveillance" to "health monitoring/surveillance."

Within the last three months, OSHA has, on two separate occasions, requested consultation from AAOHN on language relating to nursing for use in proposed standards. While the Association is pleased to provide this service to the Department of Labor, we believe that AAOHN's recent contributions reinforce our position that occupational health nursing expertise is crucial in the development of all national policy concerning occupational health and safety. We hope that Congress will not compound previous errors by excluding professional nurses from the High Risk Occupational Disease Bill.

The American Association of Occupational Health Nurses appreciates the opportunity to comment on the High Risk Occupational Disease Bill and urges members of the Subcommittee to give serious consideration to these comments.

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Mr. **Gaydos**. Well, let me commend you for a solid position that you take, and if OSHA requests consultation, we are going to request it, too. And it will put great value on your testimony, I am sure.

Ms. **Babbitz**. We would be pleased to provide it.

Mr. **Gaydos**. I have one question of you.

Would you suggest any other additions to the Risk Assessment Board? Should the Board maybe include other Government personnel, or should there be a mix of Government personnel and private sector professionals, maybe, or something like that?

Ms. **Babbitz**. Yes, we would strongly recommend a mix of Government personnel and representatives from the private sector, possibly recommended by the professional societies in the field.

I think that you need to get a different perspective from just employees of the Public Health Service.

Mr. **Gaydos**. One question in numbers. Your association, what are the official numbers as to nurses, R.N.'s that are practicing occupational health? Do you have figures on that?

Ms. **Babbitz**. The Department of Health and Human Services tells us there are 29,000. We are in the process of asking them where that documentation comes from, because we really are not sure, and they have been unable to do that up to this point.

But we are working with them on that.

Mr. **Gaydos**. So we are talking roughly 30,000 that are out there?

Ms. **Babbitz**. Yes.

Mr. **Gaydos**. In that occupation?

Ms. **Babbitz**. That is right. And by contrast, we have 12,000, the American Occupational Medical Association has 4,000 members; approximately half of those are not occupational physicians. They are physicians who practice in the occupational setting part time.

So, occupational health nurses really, by a large majority, are the most number of health professionals working in the field. Largest number.

Mr. **Gaydos**. All right, thank you very much for your testimony. I will at this time go to Dr. Cugell.

Dr. **Cugell**. Mr. Chairman, members of the subcommittee, I am David Cugell, and I am Bazley, Professional of Pulmonary Diseases at the Northwestern University Medical School.

I am currently chairman of the American Lung Association's Occupational Health Committee. And I note with interest that among his various achievements, Mr. Ashford neglected to mention that he was at one time a member of that committee before I was a member of it.

Mr. **Gaydos**. Was he trying to hide it?

Dr. **Cugell**. I am trying to boast about it, and I am also indicating that our position is similar to the one he stated, although, as you will note, our emphasis is perhaps a little different.

If I might digress further for a moment, and I perhaps disagree with your statement about the questionable value of the hotline availability for the ordinary guy in a workshop, and just recount a phone call I received yesterday from a man with perhaps a fifth grade education, who works for a plant with about 15 employees, where they fabricate gaskets using asbestos materials.

And we have, for some years, our lung disease program at Northwestern has been providing health surveys for these employees. And the employer, sufficiently enlightened to realize that these surveys are much more valuable if the results are transmitted directly from a physician to the worker, rather than to the employer.

And so, we sent a report to the worker as we normally do, and it was abnormal—the results of our testing were abnormal, and we indicated such to the worker, and we had a phone call for him to communicate should he have any questions, and so he did.

And he said, "What does all this mean and what should I do about it?" and I dug his file out of the file cabinet and I said, "Well, your breathing capacity is reduced, and you smoke too much, and you ought to do this and you ought to do that."

And he said, "Well, OK, Doc, but I ain't got a doctor. Where should I go?" And we arranged that. And rather than outrageous fear, I think we really achieved something.

So I think that properly motivated and properly informed access to medical support and assistance would be extremely useful.

The reason, in my opinion, that the coal miner was reluctant to obtain a chest x-ray film was that it impaired his employability. If you remove that factor, then the attitude of the worker toward health-related activities is quite different.

Mr. GAYDOS. How many calls do you get like that, once a month?

Dr. CUGELL. It depends on how many people we survey, for whom, and how the information is reported——

Mr. GAYDOS. Give me a guess. How many calls like that do you get, Doctor?

Dr. CUGELL. Well, we are not engaged in doing that kind of thing on a large scale. But whenever we have a survey, it might be 15 people or 10 people or 100 people, perhaps 1 or 2 percent of the people we survey do communicate with us.

Mr. GAYDOS. Based upon that experience you have, then, would you justify then putting into place a hotline because you have had a call like that, and maybe some other similar calls? Would you then say it is justifiable?

And I would like to have it on the record, so we can consider your professional position. Would you consider, because of that experience, would you then consider it justifiable to expend the funds and personnel and time and all the other implications of a hotline?

Dr. CUGELL. Well, I have just described my experience with a medical assessment, not a general information about compounds and chemicals, and I really can't comment on what that might entail and involve, and how extensive that aspect of a hotline system might be.

But with respect to mandated health screening, where there is a report on each individual person as to their health status, I think there is little doubt that a system of ready access back to the source of the information would be highly useful.

Mr. GAYDOS. Good.

Dr. CUGELL. If I may continue.

The views I am presenting here today are those, I am expressing them on behalf of the American Thoracic Society and the American Lung Association, with regard to notifying workers of health risks to which they may be exposed in the workplace.

There can be no doubt that workers and others in our society benefit from the accurate and dispassionate characterization of the particular risks that workers face, and the dissemination of information regarding these risks; an understanding of the important concept that there are risks which none in our society would willingness or should accept, and that there are other risks that are magnitudes lower and are acceptable and has been uneven evolutionary process.

Communication between those who generate and interpret risk assessment data, those who are responsible for public policy decisionmaking, and those who must consider whether to assume these risks has, at times, been inadequate and responsible for temporary setbacks in enhancing the accurate perception of risks in the workplace.

Freer dialog between workers, management, Government, and academia will move us closer to the goal of effective communication about risks and how those risks can be reduced.

There are problems in achieving the desired objective. The scientific data base on occupational risks, while at times substantial, but underutilized, is frequently incomplete, or worse, virtually absent.

The nature of the hazard may be poorly understood, or perceptions of it distorted. In prevention of disease, occupational or otherwise, we must focus on effects that impair bodily function or reduce longevity.

All risks are not the same. For example, asbestos-related pleural plaques, those are x-ray changes, and mostly they are benign markers of exposure on the one hand, and lung cancer on the other, do not warrant our equal attention.

In addition, concept of dose dependence of most occupational risks must be understood and accepted. That is, risk varies by the level and duration of exposure required to cause the effects.

The statistical methods of expressing elevated risk may be difficult to comprehend, but they are essential for the identification of a potential hazard. Risk can be stated as a multiple of an expected incidence in the general population which is unexposed to the hazard, but comparable in every other way, including the personal lifestyle and other factors which may influence the risk of the disease of interest.

There are insufficient data which provide information on the influence of such confounders on occupational risks. Increasing scientific investigation which is focused on this important area of public health, and a willingness to use the resultant information in a balanced manner are needed.

How, then, can we best identify and then notify workers who are at increased work of developing occupational disease? Critical to the accomplishment of this objective is the creation of a high-quality scientific data base which relates adverse health effects to qualitative and quantitative aspects of exposure, taking into account potential host and other factors which may modify the outcome.

The extent of our research efforts in this important area of public health is inadequate. Important contributions have come from many biomedical disciplines, extending well beyond the traditional public health community.

Physician investigators, dust physicists, environmental chemists, immunologists, bioengineers, cell and molecular biologists, biochemists, physiologists, epidemiologists, and statisticians should be encouraged to work collaboratively to increase our fund of knowledge regarding the determinants of occupational disease.

This type of broad-based research is the only reliable path to the prevention of these diseases. The basis for rational and effective risk notification and management is twofold.

First, the level of excess risk that triggers the process must be determined. This threshold risk level is a social policy issue, and may appropriately be promulgated through legislative guidelines.

Concern over true risks of 30 and 100 percent above the expected rates, in the absence of occupational exposure, as classified in H.R. 1309, seems appropriate.

The second consideration is, however, both more complex and cannot be precisely articulated. The determination of a particular occupational risk requires careful evaluation of the extent and quality of the science supporting it.

Particularly in the case of long exposure, long latency diseases, judgments must be made regarding whether workplace exposures are associated with or cause the disease. This distinction between association and causation will help to determine if an elevated risk is greater than expected on the basis of chance alone.

If predetermined elevations of risk are to trigger a process of identification and notification, which may be individually and generally disruptive, and consumptive of limited resources, scientific studies must be examined for level of confidence that an observed risk in indeed an elevated one.

Statistical analyses alone cannot tell us if such a risk estimate is the result of only the workplace exposure or to a confounder, such as smoking.

Thus, the selection of valid comparison populations is critical. These are only some of the methodological issues which must be considered before arriving at a conclusion regarding the presence and extent of occupational risks.

The framers of H.R. 1309 recognize that this second function of carefully weighing the scientific evidence requires special expertise and is likely to be as dynamic as the science being evaluated.

Establishing a national Risk Assessment Board is a commendable approach. The credibility of such a panel will depend upon a number of factors. It must be comprised of respected scientists who are exp~~erienced in~~ these issues.

The Board, through its composition, must involve fact and perception be balanced in its perspective. Board members should represent the range of disciplines engaged in occupational disease research and treatment.

In this regard, we suggest an expansion of the size of the Board in order to include other disciplines, such as immunologists and statisticians. Further, we suggest the inclusion of non-governmental scientists, as others have done here this morning, to assist in achieving the needed stature of the Board.

We offer these additional comments on H.R. 1309: Section 5, employee notification and counseling. The burden of notification should be placed on the individual employers with a mechanism requiring the development of a notification plan submitted to and approved by NIOSH.

This will facilitate interraction with the health and safety staff of the employer and address concerns related to previously employed workers.

The contents of the notification should also include information on the applicable OSHA standard, and the compliance record of the employer, which relates exposure data of specific employee populations.

We also suggest a role be considered for NIOSH in dissemination of information. NIOSH is the initial point for development of this information, and its expertise should be utilized in developing worker information.

Section 6, occupational and environmental health centers: This section specifies the selection of centers from existing NIOSH ERC's and NIEHS centers. We suggest an open competition in order to consider other centers that exist within academic institutions which meet these criteria.

An example would be the specialized centers of research under the National Heart, Lung and Blood Institute on Occupational Lung Diseases.

Meeting the laudable objectives of H.R. 1309 will mean facing severe limitations in the available data base upon which to make risk decisions, and in professional resources. These deficiencies can be overcome by strengthening the support of relevant biomedical research and training.

And I would hope the subcommittee would address this concern in future deliberations.

Thank you.

[The prepared statement of Dr. David Cugell follows:]

PREPARED STATEMENT OF DAVID CUGELL, M.D., ON BEHALF OF THE AMERICAN LUNG ASSOCIATION AND THE AMERICAN THORACIC SOCIETY

Mr. Chairman, Members of the Sub-committees:

I am David Cugell and am Bazley, Professor of Pulmonary diseases at the Northwestern University Medical School. I am currently the Chairman of the American Lung Association's Occupational Health Committee. I am pleased to present my views here on behalf of the American Thoracic Society and American Lung Association in regard to notifying workers of risks to which they may be exposed in the workplace.

There can be no doubt that workers and others in our society benefit from the accurate and dispassionate characterization of the particular risks that each face, and the dissemination of information regarding these risks. Understanding the important concept that there are risks which none in our society would willingly or should accept, and that there are others which are magnitudes lower and might compare favorably with well known and acceptable risks has been an uneven evolutionary process. The often inadequate communication between those who generate and interpret risk assessment data, those who are responsible for public policy decisionmaking, and those who must consider whether to assume these risks, has at times been responsible for temporary setbacks in enhancing the accurate perception of risks in the workplace. Freer dialogue between workers, management, government and academia will move us closer to the goal of effective communication about risks and rational choices to reduce them.

There are problems in achieving the desired objective. The scientific data base on occupational risks, while at times substantial but underutilized, will often be found to be incomplete, or worse, virtually absent. The nature of the hazard may be poorly understood, or perceptions of it distorted. In prevention of disease, occupational or otherwise, we must focus on effects which impair bodily function or reduce longevitity. All risks are not the same. For example, asbestos-related pleural plaques (a benign marker of exposure) and lung cancer do not deserve our equal attention. In addition, the concept of dose relatedness of most occupational risks must be understood and accepted, that is, risk varies by the level and duration of exposure required to cause the effects.

The statistical methods of expressing elevated risk may be difficult to understand. They can, however, provide substantial assistance in understanding (and rationally acting on) the potential hazard. Risk can be stated as a multiple of an "expected" incidence in the general population which is unexposed to the hazard, but comparable in every other way, including the personal life style and other factors which may influence the risk of the disease of interest. There are insufficient data which provide information on the influence of such confounders on occupational risks. Increasing scientific investigation which is focused on this important area of public health, and a willingness to use the resultant information in a balanced manner, are needed.

How, then, can we best identify and notify workers who are at increased risk of developing occupational disease? Critical to the accomplishment of this objective is the enlargement of a high quality scientific data base which relates adverse health effects to qualitative and quantitative aspects of exposure, taking into account potential host and other factors which may modify the outcome. The extent of our research efforts in this important area of public health is regrettably inadequate. Important contributions have come from many biomedical disciplines, extending well beyond the traditional public health community. Physician-investigators, dust physicists, environmental chemists, immunologists, bioengineers, cell and molecular biologists, biochemists, physiologists, epidemiologists and statisticians should be encouraged to work collaboratively to increase our fund of knowledge regarding the determinants of occupational disease. This type of broad-based research is the only reliable path to the prevention of these diseases.

The basis for rational and effective risk notification and management is two-fold. First, the level of excess risk which triggers the process must be determined. This threshold risk level is a social policy issue and may appropriately be promulgated through legislative guidelines. Concern over true risks of 30 and 100% above the expected rates (in the absence of the occupational exposure), as specified in H.R. 1309, is appropriate.

The second consideration is, however, both more complex and less easily precisely articulated. The determination of a particular occupational risk requires careful evaluation of the extent and quality of the science supporting it. Particularly in the case of long exposure, long latency diseases, judgements must be made regarding whether workplace exposures are associated with, or caused the disease. This type of analysis provides critical information. Importantly, it reveals the level of uncertainty or certainty that an elevated risk is not due to chance. If predetermined elevations of risk are to trigger a process of identification and notification which may be individually and generally disruptive, and consumptive of limited resources, scientific studies must be examined for level of confidence that an observed risk is, indeed, elevated. Statistics cannot, however, tell us if such a risk estimate is the result of the workplace exposure, or a confounder such as smoking. Thus, the selection of a valid comparison population is critical. These are only some of the methodological issues which must be considered in coming to a conclusion regarding the presence and extent of occupational risks.

The framers of H.R. 1309 recognize that this second function, of carefully weighing the scientific evidence, requires special expertise and is likely to be as dynamic as the science being evaluated. Establishing a national risk assessment board is a reasonable approach. The credibility of such a panel depends on a number of factors. It must be comprised of respected scientists who are experienced in these issues. The panel, through its composition, must in both fact and perception be balanced in its perspective. Board members should represent the range of disciplines engaged in occupational disease research and treatment. In this regard we would suggest an expansion of the size of the Board in order to include other disciplines such as immunologists and statisticians. Further, we would suggest the inclusion of non-governmental scientists to assist in achieving the needed stature of the Board.

We would like to offer these additional comments on H.R. 1309:

- Sec. 5, Employee notification and counseling: the burden of notification should be placed on the individual employers with a mechanism requiring the development of a notification plan submitted to and approved by NIOSH. This will facilitate interaction with the health and safety staff of the employer and address concerns related to previously employed workers.

  The contents of the notification should also include information on the applicable OSHA standard and the compliance record of the employer which relates exposure data of specific employee populations.

  We would also suggest a role be considered for NIOSH related to the dissemination of information. NIOSH is the initial point for development of this information and its expertise should be utilized in prepared worker information.

- Sec. 6, Occupational and Environmental Health Centers: This section specifies the selection of centers from existing NIOSH ERC's and NIEHS centers. We would suggest that an open competition be considered in order to consider other such centers within academic institutions which meet these criteria. An example would be the Specialized Centers of Research Program under the National Heart, Lung and Blood Institute on occupational lung diseases.

Meeting the laudable objectives of H.R. 1309 will mean facing severe limitations in the available data base upon which to make risk decisions and in professional resources. These deficiencies can be overcome by strengthening the support of relevant biomedical research and training and I would hope the Subcommittees address this concern in future deliberations.

Thank you.

Mr. GAYDOS. Doctor, thank you very much.

And I am most impressed with your suggestions which would better the proposed legislation, particularly your section 5, the employee notification and where the burden should be placed. I think that is very important.

And the last suggestion you make, Specialized Centers of Research under the National Heart, Lung, and Blood Institute, is a good example as to how things can work within a special framework of budgetary allowances and things like that.

Did you purposely leave out occupational nurses when you listed in there some of the enlargements on the Board members, Doctor?

Dr. CUGELL. By no means, and I had intended saying in my commentary at the beginning that I strongly support the statement just made, that the first line of action are the occupational health nurses, and I personally work with them on a daily basis.

We are involved in monitoring the health and welfare of the employees in four separate plants in a manufacturing company, and I agree that the role of the occupational health nurse is quite different than you remember; and that is far from relegated to a role of a band-aid when the machine—when the fellow cuts his finger, and in fact, the people with whom I deal, the nurses with whom we interract, are conducting the surveillance and the health care activities on behalf of the medical staff for the employer; that is, the annual lung function tests that are done, because there are some respiratory hazards at this factory; the annual chest x-ray film that is done as a monitoring device to determine whether there is an occupational hazard at that work site; the periodic blood testing for lead or whatever, all of these things are administered by, recorded by, supervised by the nursing staff.

And then, if any injuries are—of course, that is all in addition to their traditional role of action and reaction in response to injuries or accidents.

Mr. GAYDOS. And there would be——

Dr. CUGELL. And their participation in this Board would, of course, be extremely appropriate.

Mr. GAYDOS. I am particularly interested when you talk about the case of long exposure, long latency diseases, such as you mentioned, tuberculosis or byssinosis or one of those, where you may have a compounding factor of home smoking or some other type of deleterious activity or something, which would contribute to it.

I think that is probably where the weakness of the bill is, as to whether we can make that distinction and how you distinguish between the two or the three possible causal connections.

Dr. CUGELL. There are techniques that the epidemiologists have employed, and they involve intensive studies of large groups who are both—who have some common degree of risk through their work, some of whom smoke and some of whom who don't.

And any population can be divided up into those categories. By careful assessment, the confounding effects of tobacco may be dissected. But it is studies of this type that are needed in order to determine how these interact.

There is no question, with the limited data we have now, that cigarettes are one of the most, if not the most, important occupational lung disease hazard; that is, the synergistic effect with workplace exposure is calamitous.

Mr. GAYDOS. It reminds me we had a very famous attorney back in the Pittsburgh area that tried the first cigarette case. His name was McArdle. And I think he sued Phillip Morris at that time. It was a celebrated case many years back, 40 years ago.

And he tried the case, and in developing the evidence, it was most interesting that he kept poking at a very nebulous type of a situation, because nobody at that time knew—it was all questions, they had experts.

One expert would get up and say that it doesn't cause cancer and you can't prove it, no causal connection, and that was the beginning of all of the problems we have up until today, and every time I hear the analysis, the comparison of cigarette smoking along with other illnesses, I go back to that original case. It was a novelty in the first instance, it was a very difficult type of a case to undertake at the time.

And I remember the medical profession split right down the middle. One doctor would get on the stand and say, yes, it does; the other doctor would say, no, it doesn't. Just about that simple.

Dr. CUGELL. It was mostly split along the lines of doctors who smoked and doctors who didn't.

Mr. GAYDOS. I think that is true. That was one of the questions that was asked.

Dr. CUGELL. At the moment, you will find very few physicians who smoke, so they have been largely convinced.

Mr. GAYDOS. That is where you and your—you mentioned that in your testimony, and I think all the testimony of this panel has been extraordinary and excellent, and I think it is going to provoke a lot of good thought and study on the part of the committee, when and if they get time to go over it and get into it in detail, and I think they are going to have to when we bring this legislation to the Floor.

This is going to be the most valuable information, because that is what we are going to have battle the pros and the cons of this legislation, it will depend upon experts in the field, such as this panel and other panels we had, and others that we will have before us, because we will take a look at the practical aspects of it, funding and things like that, but in order to justify the legislation in the last analysis, is going to depend upon expert testimony, as I see it, in my opinion.

I want to thank you very much for taking the time to come here today, and if you have any additional information, please don't hesitate. Jot it down, make it available to us in any form whatsoever, and we will include it for the perusal and study of the other committee members.

I want to thank you for participating in your government.

Ms. BABBITZ. Thank you.

Dr. CUGELL. Thank you.

Mr. GAYDOS. Thank you.

We have another group, one last group.

I understand Mr. Holtshouser is here? And Mr. Roy Albert, Director Albert, Center for Occupational Safety and Health, our old friend.

Gentlemen, between the two of you, make your decision as to who wants to go first, or do you want to sum your information? It is up to you. Without objection, this testimony of this panel and all the other preceding panels will be admitted in their entirety and be part of the official record in these proceedings.

STATEMENTS OF ROY E. ALBERT, M.D., PROFESSOR AND DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL HEALTH, UNIVERSITY OF CINCINNATI MEDICAL CENTER; AND JOSEPH HOLTSHOUSER, TREASURER, AMERICAN INDUSTRIAL HYGIENISTS ASSOCIATION, ACCOMPANIED BY ROY DEITCHMAN, CHAIRMAN, AIHA LAW COMMITTEE

Dr. **Albert**. Mr. Chairman, my name is Roy Albert, I am professor and director of the Department of Environmental Health at the University of Cincinnati Medical Center. I am also director of the Educational Resource Center at the University of Cincinnati, sponsored by NIOSH, and the NIEHS Center of Excellence, which is in the Department of Environmental Health at the University of Cincinnati.

I am speaking here on behalf of both the Association of the NIEHS Environmental Health Centers, which has 10 participating universities, and the Association of the NIOSH Educational Resource Centers, which has 14 participating universities. The reason for the testimony is that in addition to the importance of H.R. 1309 to field of occupational health, the NIOSH and NIEHS centers are given a role dealing with post-notification, medical monitoring, and research in regard to occupationally-related disease.

The thrust of my remarks is to convey the support of both NIOSH and NIEHS centers for the goals of H.R. 1309. If done properly, we believe that there will be a significant improvement in worker health by the notification of increased health risk, post-notification, medical monitoring, and research to improve early detection and intervention in the associated disease processes. We support the right of workers to be notified of excess occupationally-related health risks.

It should be emphasized, however, that the NIEHS and NIOSH centers have very different objectives and resources. The resources of the NIEHS centers are so constituted as to make them most effective in the provisions of H.R. 1309 which deal with epidemiologic and laboratory research on early manifestations and the development of occupationally-related disease. The provisions of H.R. 1309 that deal with the medical monitoring of affected workers and their families is more the province of the NIOSH Educational Resource Centers, since these centers are more heavily involved with training and occupational medicine and hygiene.

In the early detection and prevention of disease, the NIEHS centers can make major contributions, since expanded research will improve our understanding of disease processes, the factors that determine susceptibility to environmental toxicants, and the development of effective methods of preventing disease processes from progressing, once they have started. This laboratory and epidemiologic research is of vital public health importance and we are enthusiastic about provisions of H.R. 1309 that will permit an expansion of our ongoing efforts in this area.

In limited discussions amongst the NIOSH Educational Resource Center Directors, there emerged important reservations and uncertainties about the technical aspects of H.R. 1309. While the Association of NIOSH Centers has not formalized its recommendations on H.R. 1309, I can assure you that it will be happy to lend its experience and intellectual resources if requested in suggesting ways to improve the technical aspects of the bill.

Let me give you a few examples of issues that would undoubtedly arise. There is sentiment that the triggering criteria for the notification has been inadequately formulated. The triggering criteria should include considerations of both the qualitative weight of evidence that an agent is a human toxicant, based on a whole array of relevant types of information, as well as the quantitative estimates of increased risk. And the latter need to include estimates of uncertainty. An alternative to the current basis for notification in H.R. 1309, is to require the development of guidelines for notification that would include public comment, and review by scientific advisory groups. Such guidelines could ultimately be incorporated into the regulations that implement the bill. Also, since the technical issues involved in notification decisions can be very complex, it might be advisable to have each case reviewed as part of the decision process by an expert group, such as the Board of Scientific Counselors of NIOSH.

Another issue that would require clarification is the lack of clarity in H.R. 1309 in defining the roles of the centers in the post-notification health monitoring of worker populations. While many of the NIOSH centers could manage post-notification health monitoring of small worker groups, particularly if there were an associated research component, the most that centers could do for large worker populations would be to provide counseling and guidance on the development of medical monitoring programs. In this regard, another uncertainty in H.R. 1309 is the question of who would pay the centers for these efforts.

Another area of uncertainty is how the notification process would be extended from specific plants that show increased health risks to the rest of the industry where health conditions are unknown. Perhaps the NIOSH centers could assist in this process by giving advice to NIOSH on the basis of onsite evaluations, as part of their training programs in industrial hygiene and occupational medicine.

Another issue for consideration is that the lack of experience in the notification process makes it difficult to decide how best to carry them out. NIOSH has done a pilot study which involved a notification of workers at a plant which no longer handles the hazardous material in question. A very different notification situation arises where a hazardous process is current and where other plants that do similar work have not been studied. One possible approach that could involve the centers is to have H.R. 1309 call for an early pilot study of notifications in plant where the current workers have increased health risks as well as other unstudied plants where similar processes are carried out. The results of such a pilot study can provide a better basis than currently exist, but formulating procedures that would maximize the benefits of notification and minimize the disruption, confusions, and anxieties that might result from an inept handling of the notification process. The form and content of notification can be very important.

This concludes my remarks, Mr. Chairman, except that I wish to repeat the central thrust of my message; namely, that the associations of NIOSH and NIEHS centers are enthusiastic about the goals of H.R. 1309 and would be happy to participate in refining the operational aspects of the bill.

Mr. GAYDOS. Thank you very much, doctor. It was well said and very concise, and we are going to call you, so we are going to be back in touch with you. And we are very happy that basically and fundamentally you agree with the bill and the thrust of the bill. The other criticisms, I think, are well taken. We will take a look at some of them and work something out.

Mr. GAYDOS. You were late coming in.

Mr. HOLTSHOUSER. I'm late.

Mr. GAYDOS. You were worth waiting for, sir.

Mr. HOLTSHOUSER. Well, a couple of tractor-trailers got tangled up on Interstate 80 outside of Cleveland, and I couldn't get to the airport. I missed my first one.

Mr. GAYDOS. I understand that, yes.

Mr. HOLTSHOUSER. The American Industrial Hygiene Association thanks you for the invitation to appear before the committee and to comment on House rule 1309. My name is Joseph L. Holtshouser, and I am the treasurer of the American Industrial Hygiene Association.

I am a professional industrial hygienist, certified in industrial hygiene and safety. And with me today is Mr. Roy Deitchman who is also a certified industrial hygienist, and he is chairman of our AIHA law committee. I have a prepared statement, which you have. I also have a short summary here.

Mr. GAYDOS. Could you spread in the record again, for the benefit of our colleagues that aren't here, an industrial hygienist, what is his background and how does he become certified if there is a certification involved, and where does he take is test? A lot of the members on the committee do not know what an industrial hygienist is.

Mr. HOLTSHOUSER. An industrial hygienist is a scientist who deals in the art and science of recognition, evaluation and control of occupational exposures that occur in the work places. We deal with engineers, with physicians, with occupational health nurses, with management, with labor, with academia, with generally anyone interested or involved in occupational——

Mr. GAYDOS. He can carry any one of those degrees, undergraduate degrees.

Mr. HOLTSHOUSER. Yes, and many do. Several are lawyers who also hold a masters degree in industrial hygienist.

Mr. GAYDOS. Is he licensed later on as an industrial hygienist?

Mr. HOLTSHOUSER. He can be certified.

Mr. GAYDOS. There is a society that licenses them.

Mr. HOLTSHOUSER. Well, it is not licensing, it is a certification. That is the American Board of Industrial Hygiene, which is the only such certification organization in the world. We have several different forms of certification which can be directed toward specific areas of study such as air pollution, or comprehensive practice, or analytical chemistry, different areas.

Mr. GAYDOS. Now, when the Government of the United States of America hires an industrial hygienist, does he have to be certified?

Mr. HOLTSHOUSER. No, he doesn't. If he is certified, it could mean—I'm not real clear on this, Mr. Chairman. If he was certified, he could receive a higher grade level. But he does not have to be certified.

Mr. GAYDOS. Just what you know, because a lot of the members—and I have even forgotten myself. I probably asked a question for a self-serving purpose, too. We kind of lose track of a lot of the technical requirements of a lot of our professionals, because there is so many different types of them today.

Mr. DEITCHMAN. Well, I might add in total number, there is something on the order of 2,000 certified, industrial hygienists that have passed the comprehensive exams and the 5 years of experience. There is no State requirements like being a licensed professional engineer and anything on that order. However, there is some recent State and local legislation that requires certified industrial hygienists to do certain tasks. It is not clear there is the manpower in existence to do those tasks.

Mr. GAYDOS. I'm glad of the explanation. I just want you to know I am not an exception because when the committee passed the ERISA, Employee's Retirement Income Security Act, we had to identify in there what an actuary was. Nobody knew what an actuary was, and whether they were certified and what the prerequisite—do I have to have a college degree? Could I call myself an actuary? So it becomes very confusing at times, so that is the only reason why I asked the question because I think it is essential to what we are doing here.

Mr. HOLTSHOUSER. Well, maybe I could put something in perspective for you. There is somewhere around 60,000 safety engineers in the United States, about 6,000 practicing industrial hygienist, 2,500, as Roy said, that are certified. There are only about 400 people in the United States who are doubly certified in both industrial hygiene and safety.

Mr. GAYDOS. That is very interesting. I will conclude by saying that we didn't certify our atomic plant managers for a long time. Please believe me, and we had some problems with them.

Go ahead. I didn't want to sidetrack you.

Mr. HOLTSHOUSER. The American Industrial Hygiene Association, founded in 1939 is the world's largest professional association representing that phase of science which seeks to prevent, by intervention in the workplace, occupational diseases and injury. The association has approximately 6,000 regular members, and about 2,500 affiliated in its more than 60 vocal sections in the United States and throughout the world.

We publish the major peer review journal in industrial hygiene. Members of our association represent the private sector, all levels of government, organized labor, and academia. The AIHA, in addition, to its journal, holds technical symposia, publishes professional brochures, recommends workplace environmental exposure levels and through its more than 40 technical and standing committees, participates in all activities relating to occupational health.

We are here today to provide some specific comments on House bill 1309. The bill refers to harmful agents, processes, activities, or occupations found in the workplace which are associated with the risk of disease. Yet is essential to the understanding and prevention of occupational disease all substances or agents have the potential for being hazardous or toxic and that it is important that we distinguish between the hazard of substances or agents and the risk of disease that the hazard presents.

We do not feel that this difference has been properly addressed in this bill, and that any Federal legislation which overlooks this distinction is likely to be unsuccessful in controlling the risk themselves. The culmination of a lifetime of exposures in the workplace, and equally important, those of lifestyle and diet resulting in disease is a complicated process which cannot be easily characterized by current epidemiological, clinical, and research capabilities.

Industrial hygiene practice is based on preventing harmful exposures. Preventive actions can be taken by both current regulating authorities and industry to anticipate and control exposures through toxicity testing, clinical surveillance, and workplace monitoring. While epidemiologic data are highly important for determining the extent and possible cause for disease and for preventive action, one need not wait for such data to act.

House bill 1309, in requiring that certain actions be taken when they are either 30 or 100 percent increases in disease, in effect, almost mandates that we wait for untoward effects to occur before action is taken. This is neither moral or ethical. On the other hand, it is quite important to note that a mere rise in a disease rate, such as described in H.R. 1309, is totally inadequate from a statistical point of view.

The numbers expressed in the bill are group risks and do not reflect individual risks. Further, a mere increase in rate does not of itself indicate a causal relation between increased risk in any particular substance, agent, process, or activity. A more detailed procedure is needed to separate random fluctuations from cause/effect patterns and to account for the effect of compounding factors.

Many people are exposed to chemicals in the normal course of their lives. Personal lifestyle factors such as smoking, diet, alcohol, and drug abuse, home maintenance and hobbies, all affect the outcome of the disease statistics which H.R. 1309 seeks to address. Using the criteria of H.R. 1309 in such a simplistic manner would not accomplish the task of protecting the individual that the framers of this legislation seek.

In addition, not all harmful exposures postulated in the bill are medically treatable or detectable. Exposure prevention, we feel, is the key. This is an area that in contrast to the Occupational Safety and Health Act, H.R. 1309 seems to overlook entirely.

The American Industrial Hygiene Association agrees that workers have the right to know about the risks of their occupations. Industrial hygienists in our association supports the education of workers in management about the hazards of their work. Further, beyond the right to know, we believe that employees are entitled to safety in the work places.

However, these concepts have been embodied in the Occupational Safety and Health Act of 1970. The right to know provisions are extant in OSHA's hazard communication standards. We believe that this standard should have the opportunity to be tested. In fact, this standard, will not be effective until November 25, 1985. We feel it is premature to attempt to fault this standard on communications before it has a chance to be effective.

It is inappropriate, therefore, to develop a new area of communications which may or may not be as effective as the standard already scheduled for implementation. The bill speaks to recognizing and diagnosing occupational diseases. We believe it is important to realize that industrial hygienists can define occupational exposures for determining patient work histories.

It is the physician with the help of the industrial hygienist who is best qualified to determine the specific medical monitoring protocols. Generic protocols mandated either through legislative or regulatory procedures cannot hope to address the wide variety of exposures found in the many workplaces in this country.

In conclusion, Mr. Chairman, we submit that, No. 1, we don't feel that it has been demonstrated enough need for House rule 1309 and the emphasis which it seeks to take. No. 2, the approach envisioned in the House rule, especially with regard toward the application of epidemiology is technically faulty. No. 3, mechanism for communication to employees are in place and are about to be expanded. They should be given the chance and the opportunity to be applied.

There is a greater effort needed by Congress and indeed by all responsible parties to prevent hazardous exposures rather than waiting to apply medical treatment. In the area of prevention, the services of the industrial hygienist become paramount.

Incentives and penalties to control exposures need to be retained and maybe expanded. We also feel that consultation efforts by industrial hygienists either employed by the Government or contracted should be expanded. Any method by which an employee is motivated to correct potential hazards certainly should be encouraged.

We strongly urge that Congress increase funding levels for industrial hygiene training. We support the education resource centers and other professional training programs under NIOSH, and we hope that budgetary support for such centers and training grants will be retained and increased.

Last, we believe that teaching of industrial hygiene principles in medical and engineering school should be encouraged, and with that I will conclude, and thank you for the opportunity to present these views. I will try to answer any questions that you might have.

[The prepared statement of Joseph L. Holtshouser follows:]

PREPARED STATEMENT OF JOSEPH L. HOLTSHOUSER, CIH, CSP, TREASURER, AMERICAN INDUSTRIAL HYGIENE ASSOCIATION

STATEMENT OF THE AMERICAN INDUSTRIAL HYGIENE ASSOCIATION TO THE COMMITTEE ON EDUCATION AND LABOR, SUBCOMMITTEE ON HEALTH AND SAFETY U.S. HOUSE OF REPRESENTATIVES

November 13, 1985

Mr. Chairman and members of the committee, the American Industrial Hygiene Association thanks you for the invitation to appear here today to comment on H.R. 1309, the High Risk Occupational Disease Notification and Prevention Act of 1985.

The American Industrial Hygiene Association, founded in 1939, is the world's largest professional association representing that phase of science which seeks to prevent, by intervention in the workplace, occupational diseases and injuries. Industrial hygiene has been defined as the science and art of recognizing, evaluating and controlling those environmental factors or stresses, arising in or from the work place, which may cause sickness, impaired health and well-being, or significant discomfort and inefficiency among workers or among the citizens of the community. The Association has approximately 6,000 regular members, and about 2,500 affiliated members in its more than 60 local sections in the United States and worldwide. We publish the major -- in fact the only -- peer reviewed journal in industrial hygiene. This also represents a forum for interchange of scientific views and elicitation of new information and understanding of means of preventing workplace illness.

Members of our Association are representative of the private sector; governmental agencies, federal, state and local; labor unions and academia. The Association has grown almost exponentially since the advent of the Occupational Safety and Health Act in 1971. This has also been due to the fact that we have encouraged employers to hire professional industrial hygienists so that they can apply the skills and science of industrial hygiene directly in the workplace. About two-thirds of our members are employed in the private sector.

The Association, in addition to its Journal, holds technical symposia, publishes professional brochures, recommends workplace environmental exposure limits and, through its more than 40 technical and standing committees participates in all activities relating to occupational health. We have commented on and proposed research, regulatory change and other official and unofficial actions by governmental and other professional bodies in such fields as hearing conservation, respiratory protection, hazardous wastes control, engineering controls, occupational medicine, toxicology, epidemiology and so on.

We are here today to provide some specific comments on House Bill 1309.

The bill refers essentially to harmful substances. It is not clear in the Bill, yet it is essential to understanding and preventing occupational diseases that all substances have the potential for being toxic. It is insufficient to speak of toxicity or hazard per se. We must distinguish between the hazard of a material and the likelihood of such hazard coming to pass. This latter element we call risk. For example, water is normally not considered hazardous. The risk to one's health is almost infinite, however, if one is lying face down in a pool of water. Similarly, the ultra violet rays of the sun are considered beneficial. Excess exposure to the sun's rays may lead to skin cancers. As a third example, consider selenium, a naturally occurring metallic element which is known to be carcinogenic at certain elevated levels. However, the absence of selenium is well-known to be correlated and causative of cardiovascular disease. So, the amount, nature, extent of exposure to a potentially hazardous substances is what establishes the risk. Federal legislation which overlooks this distinction is very likely to be unsuccessful in controlling the risks themselves.

Industrial hygienists evaluate exposures and standards are set based on individual chemicals. They are also concerned with the synergistic effects of such chemicals. This means that a given chemical by itself may not be toxic to an individual under normal conditions of use, but when such an individual is exposed to combinations of materials, toxicity and adverse effects may be manifest. Other stresses which may affect the worker such as excessive noise, heat, ionizing radiation, or vibration may also influence the effect of a toxic chemical. Finally, the rate and method by which the toxic chemical is presented to an individual is important in determining how it will affect the organism itself. Consider here, for example, low to medium levels of a toxic chemical in the work atmosphere throughout each workday, of one's working career. This may be contrasted with the potential for one time exposures under auverse or upset conditions, or exposures in an acute burst where the body defenses are overwhelmed and cannot metabolize and rid the body of the chemical. These types of evaluation on the potential for harm in use become as important as evaluating the inherent toxicity of the material itself to understand the mode of action and to prevent unwanted effects.

Industrial hygiene practice is based upon preventing harmful exposures. Actions can be taken by industrial hygienists and by both regulating authorities and companies who are attempting to anticipate and prevent such exposure and harm based upon toxicity testing and sub-clinical data. While epidemiologic data are highly important for determining the extent and possible cause for disease and for action on prevention, one need not wait solely for such data. House Bill 1309, in requiring that certain actions be taken when there are either 30 or 100 percent increases in disease, in effect almost mandates that we wait for untoward effects to occur. This is neither ethical or moral. On the other hand it is quite important to note that a mere rise in a rate such as expressed in the Bill is totally inadequate from a statistical point of view. The numbers expressed in the Bill are group risks, they do not reflect individual risks. Further, a mere increase in rates does not of itself indicate causal relation between increased risks and any particular contaminant. A more detailed procedure is needed to separate random fluctuations from cause-effect patterns.

The most appropriate detailed procedures are continuously being refined and improved. Embodying such technical matters into law inhibits adoption of change based on new knowledge.

In a work environment exposure does not occur to single isolated materials as it would in a laboratory setting. As we have already noted in this testimony synergistic effects with other chemicals may certainly occur. Potentiating effects of chemicals may cause disease to be manifest. Many people are exposed to chemicals in the normal course of their occupation. Hobbies, home repair and maintenance, are just three areas where there is contact with chemicals. Further, personal habit lifestyles such as diet, alcohol, and drug use and abuse, and smoking all effect the outcome of the disease statistics which HR 1309 seeks to address. Using the criteria of HR 1309 in such a simplistic manner would not accomplish the task of protecting the individual that the framers of the legislation seek. Finally, not all harmful exposures postulated in the Bill are medically treatable or detectable. Exposure prevention is the key. This is an area that, in contrast to the Occupational Safety & Health Act, HR 1309 seems to overlook entirely.

In identifying occupations at risk, the use of the chemical or physical agents must be recognized as being different from exposure per se. Factors such as the particular processes or the engineering controls being used, the part of the country in which the chemicals are used, seasonal variations which may require work to be indoors in fairly tight buildings or which would permit the work to be done outdoors, types of personal protective equipment in the workplace, all are important in the prevention of exposure and in fact do affect the actual exposure of the individual. For example, materials which are used in one industry in a batch process where a reactor vessel is opened, charged with the material, permitted to be closed until reaction is essentially complete, and I stress the word essentially, and then reopened will inevitably expose individuals to far greater concentrations of a given material than a process in which that same material is used in a continuous process.

Occupations do change. The current use of product and/or physical agents may be totally different from those which have caused illness in the past due to the latency periods and the long time lag before disease symptoms are manifested. In addition to the epidemiologic, clinical and laboratory studies necessary to identify occupations at risk generally, field industrial hygiene studies are necessary to assess exposure levels.

The American Industrial Hygiene Association agrees that the workers have the right to know about the risks of their occupations. Industrial hygienists and our Association supports the education of workers and managers about the hazards of their work. Further, beyond the simple right to know we believe that employees are entitled to safe and healthful work environments. However these concepts have been embodied in the Occupational Safety & Health Act of 1970. The right to know provisions are extant in the OSHA's hazard communications standard. We believe that the communications standard should have the opportunity to be tested. In fact that standard will not be effective until November 25, 1985. It is premature, we believe, to attempt to fault a standard on communications even before it has had a chance to go into effect. Industrial hygienists throughout industry and in government agencies have been busy preparing information and data relating to the hazard communications standards with an eye toward coming into compliance with that standard this month. It is inappropriate, therefore, to begin to develop a new area of communications which may or may not have any greater effects than the one which is about to become effective.

The Bill speaks to recognizing and diagnosing occupational diseases. It is important to realize that industrial hygienists can define occupational exposures for determining patient work histories. They can also characterize the chemical and physical agents necessary for such diagnoses. Certainly industrial hygienists can provide a resource for physicians in determining medical monitoring protocols. We believe that it is the physician, knowledgeable about the workplace and the materials and processes used in that workplace, who is best qualified to determine the specific medical monitoring protocols. Generic protocols mandated either through legislative or regulatory procedures cannot hope to address the wide variety of subtleties found in the manifold workplaces in this country. We would be treated then to a situation of overreaching in one case and not reaching in another if there were a single standard set of protocols.

With this in mind, therefore, we suggest the following.

1. There has been no demonstrated need for a Bill such as HR 1309 and the emphasis which it seeks to take.

2. The approach envisioned in HR 1309, especially with regard toward the application of epidemiology is technologically faulty.

3. Mechanisms for communication to employees are in place, and are about to be expanded. They should be given an opportunity to be applied.

4. There is greater effort needed to be encouraged by the Congress, and in fact all responsible bodies, to prevent hazardous exposures rather than waiting for medical treatment. In this area the services of the industrial hygienist become paramount.

. Incentives and penalties to control exposure need to be retained. We feel that consultation efforts by government industrial hygienists need to be expanded. Under the Mine Safety & Health Act for example, a conscientious employer may call for an advisory inspection and/or consultation because that employer wishes to correct possible hazards in the workplace. The objective in this case is to control the situation rather than to amass a record of citations. Unfortunately, OSHA has taken unilateral steps of deciding that any observation of non-compliance by an OSHA officer under whatever circumstances must result in a citation. This has effectively reduced the ability of OSHA to provide consultation and has limited the good that it could do. We recognize that OSHA has tried to delegate some of this activity to the States but we feel that any method by which an employer is motivated to correct potential hazards certainly should be encouraged.

6. We strongly urge that the Congress increase funding levels for industrial hygiene training. We support the Education Resource Centers and other professional training programs under NIOSH and we hope that the budgetary support for such centers and training grants will be retained and increased.

7. We believe that the teaching of industrial hygiene principles in medical schools should be encouraged. Traditional medical education still is centered on a cure after the event has occurred. We feel that prevention of disease is more important.

We thank you for the opportunity to present these views.

Mr. GAYDOS. Well, time doesn't permit me to ask too many questions. We do have a vote on the floor, and we have been here since 9:30, but at least we got 50 percent of you, because you do agree with 50 percent of the bill, and I know your comments are well taken. They appear to be, and I assure you we are going to give some special consideration to the points that you outlined where you point to the deficiencies, in your opinion, that exist in the proposed legislation.

I think you have made a valuable contribution, and I would like to ask you that under the circumstances, since I don't have too much time to maybe ask on a couple of those points that I think you properly made, if you would respond to interrogatories that we may forward to you——

Mr. HOLTSHOUSER. Certainly, Mr. Chairman.

Mr. GAYDOS [continuing]. That counsel and the director will be asking you, but I want to thank you for coming.

You have no formal presentation, do you.

Mr. DEITCHMAN. No.

Mr. GAYDOS. Without objection, I will make the testimony presented today in the form presented a part of the record. You give us much for thought, and I assure you that the counsel, and the director, and other members, hopefully, will give your evidence due consideration, your statements that you have made, and, hopefully, consider it in its entirety with other material made available to the committee and then it will put us in a better position to make an intelligent, final decision and direction in this legislation.

Anything else you want to put on the record?

Mr. DEITCHMAN. One comment in regard to the 800 number, I think we have had some experience with poison control centers and other—New York State has a toxic substances number, and their experience might be helpful to the committee in drafting the bill. I think there are worker exposure questions that go to the poison control number.

Mr. GAYDOS. I will make that notation, and we will take a look at that.

I want to thank you all for coming, and I want you to know that you make our job a lot easier by coming here in good faith, and you have to be doing a lot of hard work because this stuff just doesn't materialize out of the air. You have to do a lot of work and a lot of research.

The panels today were excellent. They are very good, very informative. I am very proud of the American public and also the business area. Thank you very much for your appearance.

The next joint hearing on H.R. 1309 will be next Wednesday, November 20. The subcommittee will stand in recess until that time.

[Whereupon, at 12:15 p.m., the subcommittee recessed.]

THE HIGH RISK OCCUPATIONAL DISEASE NOTIFICATION AND PREVENTION ACT OF 1985

WEDNESDAY, NOVEMBER 20, 1985

U.S. HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH AND SAFETY, AND
SUBCOMMITTEE ON LABOR STANDARDS,
COMMITTEE ON EDUCATION AND LABOR,
Washington, DC.

The subcommittees met, pursuant to call, at 9:30 a.m., in room 2261, Rayburn House Office Building, Hon. Joseph M. Gaydos (chairman of the Subcommittee on Health and Safety) presiding.

Members present: Representatives Gaydos, Hayes, Murphy, Petri, and Jeffords.

Staff present: Sy Holzman, counsel, and Lee Bassford, staff assistant, Subcommittee on Health and Safety; Richard Fiesta, counsel, and Teresa France, staff assistant, Subcommittee on Labor Standards; Dorothy Strunk, minority senior legislative associate.

Mr. GAYDOS. The committee will be in order.

This week, the Environmental Protection Agency announced that 403 toxic chemicals produced, sold, and used throughout the United States pose a serious and immediate danger to public health and life in the event of a chemical plant accident.

In addition to those 403 chemicals are a host of other toxic and hazardous substances which threaten the health and safety of the men and women in the workplace who manufacture and use them.

Some substances, such as the 403 identified by the EPA, are immediate threats to health; with others, such as formaldehyde, asbestos, and benzene, continued exposures can lead to serious diseases which appear only after long periods of latency.

H.R. 1309, the High Risk Occupational Disease Notification and Prevention Act of 1985, is aimed at workers in the second category—I want to be specific—the second category—who, because of those continued exposures, are at risk of disease.

Today the Subcommittees on Health and Safety and Labor Standards are conducting the fourth joint hearing on H.R. 1309.

Our witnesses represent the Departments of Labor, Justice, and Health and Human Services. In addition, we have a representative from the State of New Jersey who will tell us about that State's notification program and how it works.

With those preliminary remarks, I'd like to call Mr. Petri as he may have some observations on it.

Mr. PETRI. No. Thank you.

Mr. GAYDOS. All right. Thank you very much.

We'll go right into the hearing. The chair will call the first group of witnesses, Mr. Tyson, Acting Assistant Secretary of Labor for Occupational Safety and Health, accompanied by Mr. Berrington, Associate Deputy Undersecretary; and the Department of Justice, represented by Robert Willmore, Deputy Assistant Attorney General, Civil Division.

Gentlemen, did I identify you properly?

Without objection, your prepared testimony as presented to the committee will be made part of the formal record, and you may proceed in order as—who's the boss down there?

STATEMENTS OF PAT TYSON, ACTING ASSISTANT SECRETARY OF LABOR FOR OCCUPATIONAL SAFETY AND HEALTH, DEPARTMENT OF LABOR; CRAIG BERRINGTON, ASSOCIATE DEPUTY UNDERSECRETARY OF EMPLOYMENT STANDARDS, DEPARTMENT OF LABOR; AND ROBERT WILLMORE, DEPUTY ASSISTANT ATTORNEY GENERAL, CIVIL DIVISION, DEPARTMENT OF JUSTICE

Mr. TYSON. We don't need to answer the question of who's the boss.

Mr. GAYDOS. All right.

Mr. TYSON. But how about if I just go first?

Mr. GAYDOS. You go ahead.

Mr. TYSON. Mr. Chairman, let me read my statement into the record if I could, please.

Mr. Chairman and members of the subcommittee, thank you for the opportunity to present the views of the Department of Labor on H.R. 1309, the High Risk Occupational Disease Notification and Prevention Act of 1985.

This bill addresses a significant goal in occupational health, namely, an informed work force, aware of the effect of occupational exposures to specific hazardous substances and processes, and knowledgeable about the increased likelihood of adverse effects from such exposures.

The bill's objective would be to promote appropriate medical monitoring for employees who, because of specific workplace exposures, are more likely to contract a disease than is the employee population at large.

The purpose of such medical surveillance would be to ensure early detection and treatment of an occupational disease if it occurs. These are goals which the Department of Labor wholeheartedly supports.

We have serious questions, however, about how the bill proposes to achieve these goals and believe that the same ends could be realized within existing legal authorities and organizations. Given these serious reservations, the Department cannot support H.R. 1309.

Under the bill, a board of Government scientists would determine whether an employee population is exposed to increased risk of a disease, which is considered to be 30 percent greater than non-exposed groups, or high risk, which is 100 percent greater than a non-exposed population. The Department of Health and Human Services would then be required to notify employees in those groups of the nature and degree of the hazard they face and to ensure that they receive appropriate medical monitoring.

There appear to be several structural problems in this approach. First, the bill does not state how HHS is to identify the employees in these categories. Second, classifying employees at "increased" or "high" risk of occupational disease based upon a determination of whether occupational exposures cause a 30 percent or greater excess risk of disease does not provide an appropriate basis for determining which risks justify notification of employees. Third, the Board's recommendations, which could have far-reaching effects both on medical insurance payments and premiums and on product liability and worker compensation claims, would not be subject to rulemaking procedures.

There are no comprehensive lists of employees who have been exposed to specific chemicals, much less lists with current addresses of employees exposed 10 or 20 years ago. The information is not in the Government's possession.

The National Occupational Hazard Survey gives estimates of numbers of employees who work in industries where there is a possibility of exposure.

HHS may have names of employees who have been the subject of specific studies, but as far as we know there are no available sources of names of all employees in the country exposed to chemicals.

Regulations of the Nuclear Regulatory Commission and of the Occupational Safety and Health Administration require employers to keep certain exposure data for their employees. Under NRC rules, employers must maintain accurate lists of employees who have been exposed to radiation. These employees have access to records of their exposures and are trained to assess the degree of risk and to minimize their exposure. Similarly, employers are required to keep exposure data for employees exposed to substances regulated by OSHA under section 6(b) of the Occupational Safety and Health Act. These employees, too, are trained in those hazards.

List of past exposures would be difficult and expensive to assemble. Employers usually have the names and job descriptions of employees, but job descriptions alone would not yield the desired information. Only a detailed knowledge of the production process, together with the limited exposure data that might exist, would make it possible to assemble an estimated exposure profile. The task to construct such a list for all appropriate plants in the country would be enormous, and the problem of locating addresses for former employees would still remain.

While risk assessment can be a valuable tool to guide the actions of a Government agency in setting standards, the actions of medical researchers, or the actions of other entities which must focus their attention on problems of special significance, the Department does not believe that the risk assessment criteria in H.R. 1309 are appropriately designed to be the basis of any official notice of risk to ordinary citizens.

The basis for requiring notification of employees under the bill is whether occupational exposures cause a 30 percent or greater increase in the risk of disease. OSHA does not believe that these conditions provide an appropriate basis for determining when an employee should be notified of risk. The extent to which a risk to an occupational group exceeds the baseline risk to the general population for a particular disease has, in itself, only a limited relationship to the likelihood that any particular individual in that group will contract the disease.

The bill's criteria for notification do not include several factors which are relevant to a realistic evaluation of an employee's risk. One factor that has been excluded is the amount of exposure an employee might experience.

The length of time an employee is exposed to a potential hazard or the amount of the potential hazard to which the employee is exposed can significantly affect an employee's risk of contracting a disease.

For example, a working lifetime of exposure to a chemical at high exposure level may cause a substantial risk, but a brief exposure to the chemical at low exposure levels may cause a small risk.

To illustrate this point further, let us suppose that 30 years of exposure to a certain chemical at 100 parts per million causes a 30-percent increase in the risk of, for example, bladder cancer. A 1-year exposure at 10 parts per million, if the response is directly proportional to dose, would then create only a one-tenth of 1-percent increase in the risk of bladder cancer. H.R. 1309, however, would not distinguish between these two very different situations if an occupational group experiences a 30-percent increase in total risk.

Another factor not included in the bill's criteria for notification is the incidence rate of disease. A 30-percent increase in the risk of contracting a rare disease may still not constitute a very substantial risk.

For example, the lifetime incidence rate of cancer of the appendix is 14 per 100,000 persons. A 30-percent increase in that rate is an increase of 4 per 100,000 persons. It is questionable whether such an increase in a very small risk should constitute a basis for requiring notification.

It is also necessary to consider that confounding factors, such as cigarette smoking or environmental conditions outside the workplace, may impact synergistically on risk.

Because of the overly broad risk assessment criteria in the bill, the Department believes that H.R. 1309 would require notification of employees in situations where the actual risk to the employee would not appear to be substantial enough to warrant such notification.

There are also problems in the way the Risk Assessment Board is constituted. The Board, whose purpose is to assess the risk of chemicals, would include only Public Health Service employees, without any provision for public participation or adherence to standard administrative procedures in its decisional process.

Since the recommendations of the Board would result in obligations both for insurance companies and employers not to discriminate and to increase insurance payments and premiums, it would seem appropriate that rulemaking procedures be required for the Board.

The bill also raises serious liability implications for workers' compensation laws by requiring individual notifications of increased risk and providing for the determination of that risk by the Federal Government. In this regard, our primary concern is the bill's definition of occupational disease as: "Any disease associated with hazardous occupational exposures which appears in a given employee population at rates exceeding that of the general population."

This definition makes an assumption of causal relationship between long latent illnesses and occupational exposures which is not generally made in occupational disease provisions of workers' compensation laws. Unlike workers' compensation laws, this bill has no requirement that such a disease be one that has in each individual case arisen out of and in the course of employment.

While this bill's broader definition may be appropriate as a basis for triggering attention to a problem that warrants medical monitoring, a narrower definition is needed in determining causation in a workers' compensation context. To proceed otherwise could transform the workers' compensation system into a general social insurance program.

Unfortunately, the mechanism established by H.R. 1309 for the dissemination of information would establish a Government entity whose decisions on severity of risk could not help but find their way into workers' compensation programs even though, on their face, such decisions have nothing to do with the issues of causation that must be established in such cases.

We are also concerned about the provisions in the bill which could be interpreted to permit the cost of medical monitoring and treatment by insurance carriers to be the basis of a subrogation claim against the employers or their workers' compensation carriers. Under the bill, these costs could accrue even before any disease has developed or a causal relationship between the employment and the disease has been established.

There are other aspects of the bill as presently drafted that cause us some concern. Potential workplace hazards appear to be equated with overexposures. The bill defines hazardous occupational exposure as any—and I'm quoting—as: "Any harmful chemical, physical, or biological agent which is associated with the risk of disease."

This definition assumes that the presence of such an agent must result in employee overexposure. Countermeasures and controls such as engineering controls, personal protective equipment, and safe work practices are ignored.

The Department of Labor believes that it is possible to achieve the goals of H.R. 1309 through existing statutes and regulations.

Several programs with similar goals already exist as a result of various provisions of the Occupational Safety and Health Act of 1970. For example, H.R. 1309 would establish occupational and environmental health centers to conduct research on job-related disease, including epidemiological and other studies to identify workers at risk and to train workers in this area. Sections 20, 21, and 22 of the OSHA Act already grant to the National Institute for Occupational Safety and Health the authority and the responsibility to engage in most of these activities.

Information on their exposure to chemicals is available to workers under OSHA's Access to Employee Exposure and Medical

Records Rule, which is at 29 CFR 1910.20. This has been in effect since August 1980.

The Access Rule contains a specific provision that employers must inform employees of the existence, location, and availability of medical records and must also inform them of their rights of access to those records. Former employees also have these rights available to them, though knowledge about exposure, including training about hazards, is more readily accessible to those presently employed at the worksites in question.

All of OSHA's health standards issued since 1974 under section 6(b) require employers to notify employees of the results of medical examinations required under the standards. These include regulations to control workplace exposures to arsenic, lead, coke oven emissions, acrylonitrile, vinyl chloride, cotton dust, ethylene oxide, and dibromochloropropane (DBCP).

The Mine Safety and Health Administration is developing similar rules to address air quality and exposure to ionizing radiation.

Most significantly, however, OSHA's Hazard Communication Standard, which was promulgated in November 1983 and which is to go into effect initially next Monday, the 25th of this month, and then fully with respect to the rest of manufacturing on May 25, 1986, will provide better notification of current employees than the proposed bill.

The Standard covers a much broader range of chemicals than could be addressed by the proposed Risk Assessment Board within any forseeable timeframe. Employees will be trained in the hazards of any chemicals to which they may be exposed and in precautions to take to safeguard against overexposures. This training is likely to have a greater impact than a notice. The cost of the program, which is substantial, is borne by the employer and not the Government. Since it is workplace-based, a much higher percentage of exposed employees are likely to be informed of the risk than would be through notification from lists compiled by HHS.

Additionally, under the OSHA Standard, employee representatives have access to hazard data.

The regulation requires chemical manufacturers and importers to evaluate the hazards from chemicals, label those that are hazardous, and prepare material safety data sheets which describe, among other things, the risk and the precautions. These material safety data sheets must be sent to employers who use the chemicals. Those employers in turn must make them available to employees, leave warning labels on containers, and train employees about the physical—I'm quoting—"The physical and health hazards in the work area."

While the information collected for compliance with the standard is likely to be disseminated to all sectors of the economy and not just to the manufacturing sector, OSHA is already in the process of considering the extent to which the standard can be extended to other employers.

The detailed information which is to be provided under the standard must include any information available to a chemical manufacturer or an employer which shows that exposure to a substance is associated with increased risk of developing a particular disease. Employers must disclose this information to individual employees who are exposed to the hazardous chemical and must provide appropriate training about how to minimize the risks involved. The information has to be provided whether the industry itself developed the information, was advised about the risk by NIOSH following a Government study, or was on notice about the risk as a result of technical information in the general literature on the issue.

We have every reason to believe that this information will be disclosed under the Hazard Communication Standard. All manufacturing employers are obliged to comply with the provisions of the Hazard Communication Standard under the OSH Act.

Furthermore, chemical manufacturers have incentives to provide full disclosure in order to avoid liability to their employees or to their customers' employees in the event that exposure to a chemical hazard is found to result in compensable disease.

Because OSHA's Hazard Communication Standard would be a more effective vehicle for notifying current employeees at risk, it seems redundant to institute another program such as that proposed in H.R. 1309. Certainly it would appear to be premature to institute an overlapping program until judgement can be reached on the effectiveness of the Hazard Communication Standard.

In summary, while it supports the goals of H.R 1309, the Department of Labor believes that the combination of existing liability incentives and regulatory requirements can effectively promote the development of additional information about the risks of disease associated with exposure to particular hazards in the workplace and ensure the communication of that information to potentially affected employees.

Accordingly, we see no need for the addition of a new Federal program of the type contemplated now by H.R. 1309.

That concludes my prepared statement, Mr. Chairman.

I would be happy to respond to questions.

Mr. GAYDOS. I call now on Mr. Murphy, who chairs the other subcommittee that has joint referral.

Mr. MURPHY. Thank you, Mr. Chairman.

Thank you very much for being with us this morning.

I noted that a week ago, on November 13, the news release issued by the Department of Labor announced that the incidence of occupational disease is on the increase in the country.

Now, we have had a steady decline for a number of years when the lost number of days was on the decrease.

With that unfortunate announcement that lost days are on the increase, how do you explain DOL's position that you are not now in favor of a measure that would simply notify workers of potential injury or disease in the workplace?

Mr. TYSON. I need to make this point very clearly, Mr. Chairman, and that is that we are not opposed to the concept. The concept is one which we agree with very much. Employees ought to have that kind——

Mr. MURPHY. Then do you have suggestions on how we can amend the bill to fit within your concept?

Mr. TYSON. We would be very happy to work with the committee in that regard.

Mr. MURPHY. Do you have those recommendations this morning?

Mr. TYSON. If you—if there were issues that you particularly want us to look at, I'd be happy to do so. But until we have something before us to review it's difficult to take a position.

I can raise and will be happy to discuss concerns that we have with the existing legislation.

Mr. MURPHY. But you've pretty well picked it apart.

Mr. TYSON. Well, the concept here, and I want to make this point as clearly as I can, is that the basis for this is a good idea. I mean, the idea of informing employees about their potential for increased risk associated with exposures is a good one, and it's the basis for the Hazard Communication Standard.

Mr. MURPHY. You, therefore, would state that it would be the policy of DOL to support the concept of notification to workers of potential risk?

Mr. TYSON. Yes. I think that would clearly be our policy. It is evidenced by the Hazard Communication Standard, the most significant regulatory action we've ever taken, which has as one of its major thresholds or major cornerstones just that policy.

Mr. MURPHY. Are you doing anything at the present time administratively to bring about such notification?

Mr. TYSON. Well, the Hazard Communication Standard goes into effect on Monday. That is the product of literally years and years of regulatory effort to get it to the status it's in.

That standard now applies to the manufacturing sector. I also expect to sign on Monday an advance notice of proposed rulemaking to look into the issue of expanding that standard into all segments of the economy, and would expect that to be published in the Federal Register next week.

Mr. MURPHY. Good. Thank you.

Thank you, Mr. Chairman.

Mr. GAYDOS. Mr. Petri.

Mr. PETRI. Thank you, Mr. Chairman.

Do you have any explanation for the turnaround in the accidents in the workplace that seems to have occurred in the latest recorded figures.

Mr. TYSON. I appreciate the opportunity to express my feelings on that: First, we're very concerned and distressed by any increase in injuries. We look to a lot of factors, and we're going to be studying additional factors to determine why that took place.

We have a few ideas, a couple of points need to be made. One, with the chair's earlier question with respect to occupational illnesses. Occupational illnesses are not effectively measured by that survey. The only illnesses that show up in the BLS survey are usually short duration problems, such as dermatitis.

The real picture of occupational illness is not indicated by that.

The injury data, on the other hand, is reliable and is, we think, well counted.

The explanations that we can put forward with respect to that are and have to be incomplete because we want to study the data more. As I said, we're concerned about it.

But a couple of factors are clearly present. One, we had the most significant increase in employment in that year that we've had since 1972—the greatest increase in the number of people working.

Mr. **Petri**. Is this manufacturing employment or employment overall?

Mr. **Tyson**. Overall employment. Yes, sir.

That brings rise to a phenomenon in the safety and health community known as the new worker's syndrome; it has been known for some time that the employee most likely to be hurt on the job is the employee who's been at that job for a year or less. That's not simply to say young people, it's to say people who are starting a new job regardless of their age on the calendar.

We were aware of this problem back in 1982, and OSHA took a number of measures in anticipation of an increase in employment—and, therefore, an increase in the number of new workers entering the workplace—we took a number of steps to try to head off what could be this type of problem.

One of the things we did was to send a letter to some 17,000 employers who were identified as being in areas of the economy that were likely to experience increased employment. In that letter, we attempted to make them aware of the fact that this phenomenon existed, that new employees are more likely to be hurt, and they should take a look at that in their training programs and orientation programs for those new employees.

We have, in our awarding of New Directions grants, used that as one of the criteria. The training of new workers is one of the criteria for awarding such grants.

We have attempted to try to target into those areas with some inspection activities, although with very limited success there because of the incomplete data, but I mean it's an issue that we knew was coming, we were trying to get ahead of. Unfortunately, we weren't able to do as much as we had hoped.

Mr. **Petri**. Thank you.

But, in any event, as far as this hearing is concerned, I think you stated that our figures for accidents on the job are not particularly indicative of exposure to hazardous substances.

Mr. **Tyson**. Right.

Mr. **Petri**. It's a separate thought.

Mr. **Tyson**. The occupational illnesses which are traditionally recorded on the logs that are kept in the workplace are those which the employer can immediately identify as being associated with the work environment. Usually that's something which is very acute in nature. Often, I think, the majority of these cases tend to be contact dermatitis.

Mr. **Petri**. Now, do you have any feel at all as to the cost to the Government or to society of putting into effect this legislation? Note the elements of it: research, risk, Risk Assessment Board, medical monitoring, notification, and so on.

Mr. **Tyson**. If the Congressman will permit me to say that it's only feeling, because we do not have any concrete data, it would be, I think, a very expensive proposition, especially just the business of putting together the notification process. Determining the names of individuals and setting up a mailing system is a very, very expensive proposition.

I think Dr. Millar, later this morning, is going to talk about some of the experiences they've had on a very limited basis with respect to attempting such notifications, and the expenses are quite high.

You've got to look to see whether or not that's the most effective way of accomplishing the end.

Mr. **Petri**. Does the Government notify its own employees or people working on Government contracts of these sources of risks?

Mr. **Tyson**. Under Hazard Communication, which will go into effect Monday, we will. We will be making those notifications through that process.

Mr. **Petri**. Uh-huh.

Mr. **Tyson**. They will, you know. They will be aware of the fact that substances that they're dealing with have the potential of causing risks of disease of a certain nature.

Mr. **Petri**. I think I'll stop for now.

Mr. **Gaydos**. OK. Thank you very much.

Mr. Tyson, this is a well prepared analysis of the bill. I want to compliment you. If the agencies spent that much time on doing some other things, we wouldn't have you here.

Mr. **Tyson**. I'm not going to comment on that.

Mr. **Gaydos**. We want to study it. In fact, I really want to compliment you because you really methodically take the bill, and at least you promulgate your position on it, which I appreciate and understand.

Are you familiar with the article on OMB's curb on data collecting that appeared in today's paper, where the National Institute for Occupational Safety and Health, yesterday, said it's appealing to the OMB to reverse its rejection of a plan to study the effect of dioxine, a deadly—it's an Agent Orange thing—a deadly byproduct of pesticide production, et cetera.

OMB answers, according to this documentation and a complaint from NIOSH, that there's already enough research going on and already conducted.

Mr. **Tyson**. I read the article in the paper.

Mr. **Gaydos**. Do you have any concern with it?

Mr. **Tyson**. I need to point out one thing, and that is that the action taken by OMB is pursuant to the Paperwork Reduction Act, which was an act of Congress, telling Government to reduce the burden of paperwork on people. You know, those are the provisions they're looking at with respect to that study.

I have no independent knowledge beyond that of whether or not the study is meritorious or not.

Mr. **Gaydos**. Well, the fact remains that I think it is very important, it's sensitive, and it goes to the point to justify the presence of this bill.

So many of our agencies, whether they're directly or indirectly involved, are very hesitant about doing things.

The bill that we're discussing today—it's not a perfect bill—but it does pertain to the 24 permanent standards. It doesn't pertain to all the standards that we have and the ones that we accepted when we originally passed this bill.

Mr. **Tyson**. Yes, sir.

Mr. **Gaydos**. Now, you say it does?

Mr. **Tyson**. It refers to the entire table, which is——

Mr. **Gaydos**. Pardon?

Mr. **Tyson** [continuing]. Four hundred substances.

Mr. HOLZMAN. Are those initial batch? Are they considered permanent or still interim?

Mr. TYSON. They are. They are considered to be permanent standards.

Mr. HOLZMAN. They are?

Mr. GAYDOS. They are considered to be permanent?

Mr. TYSON. They're not 6(b) standards, they're 6(a) standards. But the way we've interpreted the provision, and perhaps the chair didn't mean for us to interpret it that well, and since it's your bill——

Mr. GAYDOS. Well, we're going to take a look at it. I think there's some question as to whether you're accurate or not in that respect because as I look at it this only pertains to the 24 permanent standards.

Mr. TYSON. A——

Mr. GAYDOS. I don't want to get into a controversy on it.

Mr. TYSON. Yes.

Mr. GAYDOS. Because——

Mr. TYSON. I mean, your interpretation controls, of course.

Mr. GAYDOS. Yes.

Mr. TYSON. But one point I would make is that for those 24 standards for which we have enacted—or where we have put in what we call complete health standards as opposed to simply permissible exposure limits in the Z tables—we do have requirements for medical surveillance and monitoring where current employees, much more so than previous employees, have to be notified of the results of medical examinations. Medical examinations have to be conducted on a routine basis, exposure monitoring has to take place, and all those records have to be made available to the employees.

Mr. GAYDOS. All right. We'll move from that subject.

You keep referring to the fact that we have now a new standard and we should give it a chance to work. I think, in essence, that's about what you're saying aren't you?

Mr. TYSON. Yes, sir.

Mr. GAYDOS. Take a look at it and see if it works. And if it works, we don't need anything else.

But isn't it true that even with the new standard everything is dependent again on the individual employers and the accuracy and completeness of the material safety data sheets that they provide, and the training programs that they provide and put together?

Who's going to check? Of all the activities over the last 15 years of OSHA, who's going to check these things? Do you have confidence that they'll be carried out to the nth degree and that they'll be effective?

Mr. TYSON. I don't want to belittle the magnitude of the problem. You're talking about having to check thousands and thousands of material safety data sheets, but in our inspection activity, which we will start next week, on this issue, we are committed to making sure that these material safety data sheets have been effectively prepared, and we will be checking them. We are using a number of services to give us accurate data on what should be on a material safety data sheet. We've got independent knowledge and expertise among our own employees. We will be reviewing them.

We'll also be reviewing the program the employer uses to develop the material safety data sheets to make sure that that program looks at all the relevant materials, that it goes through the complete literature on the issue.

Mr. GAYDOS. So, it's your position, then, on record, that you believe you have the wherewithal, the personnel to do just what you stated before will be done?

Mr. TYSON. I believe we do, Mr. Chairman. And we are committed to making sure that this standard works and that the material safety data sheets are accurately put together.

Mr. GAYDOS. Well, I wish you good luck. And I'm going to, in a joking way, call you Houdini because I don't know how you're going to do it.

The fundamental reason for the suggested legislation is to do something we haven't been able to do over the last 15 years.

Mr. TYSON. Well, we haven't had the standard in place, you know. It was a major effort, an effort that you were personally involved in, Mr. Chairman, to get that standard promulgated. And we appreciate your assistance there.

But I think, by far and away, this standard has got the greatest impact on employee health in this country of anything that OSHA has ever done. It is by far and away the most significant regulatory action OSHA's ever taken.

And, you know, the characterization you made earlier is this standard may make a bill such as this totally unnecessary. It may be saying too much in terms of our position. But what we need to do is find out where the gaps are going to be after this standard is in place.

Mr. GAYDOS. You're persistent in your position. And I want to compliment you on a well prepared presentation.

We will take a look at it in detail and get back to you.

Mr. TYSON. Thank you.

Mr. GAYDOS. There's some points over there.

And I want to say this upfront, that if we think that you've made valid positions, points, we have no—I have no hesitation to ask for and accept changes in the proposed legislation.

I want you to know that we value your position, although we may not necessarily agree with what you say.

We've had a very terrible heartrending experience with OSHA over the last 15 years. And there's still literally millions of employees that are completely ignored. And I guess there's a reason or a cause for it, as far as budget limitations, personnel, et cetera, and the change of administrative heads repeatedly, you know. One policy group gets in, and another takes over. All of those things are involved.

But we think you have—we have to do something. There are too many dangerous chemicals being handled out there with actually no basis upon which to properly evaluate and to treat employers and employees.

And in the last analysis, I've got to tell you, and I don't know whether I reflect the general feeling of the committee or not, but I sincerely believe that it would inure to the benefit of employers and the Government in general, and the whole industry in general, and OSHA, and everybody else if we could make these early determinations as far as the cost factor is concerned. Because I notice in your dissertation here or your presentation you make a lot of reference to cost, compensation, claims, and things like that.

But I think, in the last analysis, and just my opinion, I think this would be the better approach. And all those factors that you bring up as being very important I think would be answered or at least addressed. That's my opinion.

And, of course, I want to take a look at your statement. It's a very good statement.

Mr. Hayes.

Mr. **Hayes**. Thank you, Mr. Chairman.

I have what amounts to, I guess, one question of Mr. Tyson.

As Acting Assistant Secretary of Labor for Occupational Safety and Health, obviously you reflect here in your statement, what amounts to the position of the Department of Labor, you know.

Mr. **Tyson**. Yes, sir.

Mr. **Hayes**. So I can understand clearly your position, are you saying that current standards could stand some strengthening, but you're not sure that H.R. 1309, as proposed, is the right approach to strengthening current standards?

Mr. **Tyson**. And address the issue. Yes, sir.

Mr. **Hayes**. And are you saying that the Department itself would be most happy to sit down at some point and review with this committee those specific areas which they would be willing to support strengthening?

Mr. **Tyson**. Yes, sir. I would very much be pleased to sit down with the committee to help them look into that.

Mr. **Hayes**. You are not prepared to submit to this committee in writing those things that you think?

I'm a firm believe in that age-old adage—"if it's not broke, don't fix it." But we say it's broke. And you—I think you say the same thing.

Now, what are those areas that you think you'd be willing to work with us in strengthening?

Mr. **Tyson**. Maybe what we're really discussing is how broke is it.

Mr. **Hayes**. Yes.

Mr. **Tyson**. And what's the best way to fix it.

And, as I said, we'll be happy to work with the committee.

There are a number of points that we made in my prepared testimony with respect to areas that we think deserve further consideration and change. Because it's not the basic thought that's the problem; it's the impact of the program that's set up to accomplish that goal that causes us concern.

Mr. **Hayes**. Yes.

Mr. **Tyson**. And, again, the hazard communication standard is a significant piece of regulatory activity. It goes into effect partially on Monday. In another 6 months it will go into full effect.

We need to see the—what it's going to do before we start up a whole new Government program with all the attendant costs.

Mr. **Hayes**. The current statute comes—it really comes up short when it comes to notification and prevention. You know, these are two areas that 1309 tends to direct itself to.

Mr. **Tyson**. I think you make a good point, Congressman. And that is, traditionally, in OSHA we feel like we ought to be in the prevention business. And this bill is really more toward a treatment issue. I think the better approach, if we would do it, is—let's do the prevention part of it and strengthen that end of it so that we don't have to worry about the other end.

Mr. **Hayes**. Thank you, Mr. Chairman.

Mr. **Gaydos**. A little observation that I'll just pass on to you. It's been the experience of the committee, and me personally—let me speak from a personal viewpoint that based upon the opinions that have been voiced repeatedly in the circles within which we deal there seems to be a consensus that the best results we had, and the most cooperation we received, and the most effective was the OSHA, occurred in the Ford administration.

I don't know why that would be. But maybe it's because Mr. Ford had a solid background in the House. That might be it. But, anyhow, it did more things under more adverse circumstances than any administration. I've got to say that.

Even with our friendly administrations, as far as I'm concerned personally, Mrs. Bingham, under the—during the Carter years, we had a lot of—suffered a lot of frustrations, a lot of things we didn't do that we thought could have been done.

So, I want to transcend any political stigmatization involved in the act. And I really mean that sincerely.

We feel that after 200 years, when a country puts together an act so late, that other countries that had 40 and 50 years of experience—and that's the background of OSHA, because I was here when we put it into effect—under those circumstances that there's something that we can expect, you know, from the act that—a little more, maybe, acceleration to putting into effect.

And it's not just one administration, it's all of them. And OMB seems to be right in the middle of the whole thing in both administrations. I want you to know that.

Mr. **Tyson**. Thank you, Mr. Chairman.

Mr. **Gaydos**. Mr. Jeffords is here. And although he hasn't had an opportunity to listen to your testimony, I'm sure he'll have some very demanding and pertinent questions.

Mr. **Jeffords**. What should I ask him? [Laughter.]

Mr. **Gaydos**. I can hold it in abeyance. We can come back to you.

Mr. **Jeffords**. Why don't you come back?

Mr. **Gaydos**. All right. Sure.

Mr. **Jeffords**. Let me get oriented first.

Mr. **Gaydos**. All right. We have, I understand, Mr. Willmore here.

Mr. **Holzman**. Yes.

Mr. **Gaydos**. Before we get to him, I've talked to Mr. Petri, Mr. Murphy, and Mr. Hayes, and we're going to make this report from the U.S. Department of Labor, consisting of statistical material, without objection make it a part of the formal record in these proceedings.

[The report, USDL-85-483, follows:]

News United States Department of Labor

Bureau of Labor Statistics Washington, D.C. 20212

Washington, D.C. USDL - 85-483

J. Inzana (202) 272-3470
K. Hoyle (202) 523-1913

FOR RELEASE: 9:00 a.m. EST
Wednesday, November 13, 1985

Occupational Injuries and Illnesses in 1984

Work-related injuries and illnesses in private industry increased in 1984, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. Eight incidents of injury or illness were reported for every 100 full-time workers, a rate of 8.0, compared with an incidence rate of 7.6 in 1983 (table 1). The number of injuries and illnesses increased to 5.4 million in 1984 from 4.9 million in 1983 (table 2). This over-the-year increase of 11.7 percent was considerably higher than the 6.6 percent increase in hours of exposure which resulted from increased employment and hours during the second year of the current economic recovery.

In 1984, the number of incidences of injuries and illnesses serious enough to result in lost workdays was 3.7 per 100 workers, up from 3.4 in 1983. The number of workdays lost by such incidents averaged 63.4 per 100 full-time workers in 1984 and 58.5 in 1983.

The number of work-related deaths in 1984 is estimated at 3,740 in private industry establishments which had 11 or more employees. As in previous years, accidents on the road, with cars and trucks, accounted for more than one-fourth of all of these deaths. The remainder resulted from a variety of other causes, including heart attacks, falls, accidents with industrial vehicles, and electrocutions.

Occupational injuries

Job-related injuries occurred at a rate of 7.8 per 100 full-time workers in 1984 (table 3). The injury rate, which had been in the double digit range a decade ago, dropped to 8.8 in 1975 and then rose to 9.2 in 1978 and 1979. The injury rate dropped steadily each year after that to a low of 7.5 in 1983 and then rose 0.3 point in 1984. The number of workers employed and the hours they worked varied from year to year as did the mix of experienced and inexperienced workers and the proportion of those employed in high- and low-hazard industries.

In 1984, injury rates rose in all the industry divisions for which data are presented in this release except for agriculture and for finance, insurance, and real estate (table 4). The rates in 1984 ranged from a low of 1.9 in finance, insurance, and real estate to a high of 15.4 in construction. Goods-producing industries (agriculture, mining, construction, and manufacturing) had the highest rates, 11.0 per 100 full-time workers for the sector as a whole. As might be expected, the services-producing sector (services, trade, transportation and public utilities, and finance, insurance, and real estate) had a lower rate--6.0.

The number of injuries was 5.3 million compared with 4.7 million in 1983. About 60 percent of the increase in injury cases was in the goods-producing sector. An increase in mining was primarily in oil and gas extraction and an increase in construction was primarily among general building and special trade contractors. Fabricated metal products, machinery, electrical and electronic equipment, and transportation equipment had most of the increase in manufacturing.

The number of injuries in the services-producing sector increased about 237,00 in 1984. About 60 percent of this increase came from seven industries--trucking and warehousing, air transportation, durable goods wholesale trade, food stores, eating and drinking places, hotels and motels, and business services.

As in past years, workplaces with 100 to 249 employees recorded the highest incidence rates (table 5). The rate for this group was 11.1 per 100 full-time workers, compared with 5.4 in establishments with 2,500 or more workers, and 3.6 in establishments with fewer than 20 workers.

Occupational illnesses

An occupational illness is any abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. Acute and chronic illnesses or diseases which may be caused by inhalation, absorption, ingestion, or direct contact are included. Occupational illnesses measured in the survey cover the number of new illness cases recorded during the year. The survey does not measure continuing conditions reported in previous years. Illnesses are recorded only for the year in which they are recognized as work-related.

About 124,800 occupational illnesses were recorded in 1984. The number of skin diseases and disorders associated with repeated trauma (noise-induced hearing loss and other conditions due to repeated motion, pressure, or vibration) together accounted for 3 of every 5 recorded illnesses. Occupational illnesses estimated in the survey provide a valid measure of recognized acute cases, but do not adequately reflect that portion of occupational illnesses which are chronic and which take a long time to develop. In many of these cases, it is difficult to recognize these illnesses and establish their relationship to the workplace.

Survey background

The Annual Survey of Occupational Injuries and Illnesses, authorized by the Occupational Safety and Health Act, represents all employers except the self-employed; farmers with fewer than 11 employees; private households; railroads; coal, metal and nonmetal mining employers; Federal, State and local government agencies; and employers with fewer than 11 employees in low-risk industries. Approximately 280,000 private sector employers were surveyed. To calculate estimates for the total private sector, the Bureau of Labor Statistics uses data provided by the Department of Labor's Mine Safety and Health Administration and the Department of Transportation's Federal Railroad Administration. The data collected by these agencies are authorized by other laws.

Estimates based on a sample may differ from figures that would have been obtained had a complete census of establishments been possible using the same schedules and procedures. For rare characteristics, such as fatalities, the sampling error can be relatively large. Relative standard errors are calculated for the estimates and will be published in an annual bulletin in a few months.

Table 1. Occupational injury and illness incidence rates by industry division, 1983 and 1984 1/

Industry	Incidence rates per 100 full-time workers 2/							
	Total cases 3/		Lost workday cases		Nonfatal cases without lost workdays		Lost workdays	
	1983	1984	1983	1984	1983	1984	1983	1984
Private sector 4/	7.6	8.0	3.4	3.7	4.2	4.3	58.5	63.4
Agriculture, forestry, and fishing 4/	11.9	12.0	6.1	6.1	5.8	5.9	90.8	90.7
Mining 5/	8.4	9.7	4.5	5.3	3.9	4.3	125.1	160.2
Construction	14.8	15.5	6.3	6.9	8.5	8.6	118.2	128.1
Manufacturing	10.0	10.6	4.3	4.7	5.7	5.9	73.5	77.9
Durable goods	10.3	11.1	4.3	4.8	6.0	6.3	73.4	79.9
Nondurable goods	9.6	9.8	4.3	4.4	5.3	5.3	73.6	74.9
Transportation and public utilities	8.2	8.8	4.7	5.2	3.5	3.6	94.9	105.1
Wholesale and retail trade	7.2	7.4	3.1	3.3	4.1	4.2	47.8	50.5
Wholesale trade	7.0	7.2	3.2	3.5	3.8	3.8	50.6	55.5
Retail trade	7.3	7.5	3.0	3.2	4.3	4.3	46.7	48.4
Finance, insurance, and real estate	2.0	1.9	.9	.9	1.1	1.0	12.8	13.6
Services	5.1	5.2	2.4	2.5	2.7	2.7	37.0	41.1

1/ To maintain comparability with the rest of the series, a statistical method was used for generating the estimates to represent the small nonfarm employers in low-risk industries who were not surveyed for 1983 and 1984. The estimating procedure involved averaging the data reported by small employers for the 1980, 1981, and 1982 surveys.

2/ The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as: (N/EH) X 200,000, where

N = number of injuries and illnesses or lost workdays
EH = total hours worked by all employees during calendar year
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

3/ Includes fatalities. Because of rounding, the difference between the total and the sum of the rates for lost workday cases and nonfatal cases without lost workdays may not equal the fatality rate.

4/ Excludes farms with fewer than 11 employees.

5/ Excludes independent mining contractors.

Table 2. Number of occupational injuries and illnesses, and lost workdays by industry division, 1983 and 1984 1/
(In thousands)

Industry division	Total cases 2/		Lost workday cases		Nonfatal cases without lost workdays		Lost workdays	
	1983	1984	1983	1984	1983	1984	1983	1984
INJURIES AND ILLNESSES								
Private sector 3/	4,854.1	5,419.7	2,182.7	2,501.5	2,667.6	2,913.4	37,201.4	42,983.8
Agriculture, forestry, and fishing 3/	88.0	93.6	45.1	47.4	42.8	46.0	668.8	709.6
Mining 4/	78.9	94.1	42.2	52.0	36.5	41.7	1,178.9	1,560.7
Construction	494.6	582.0	210.0	258.8	283.9	322.4	3,944.9	4,794.9
Manufacturing	1,772.8	1,988.6	763.7	873.6	1,008.2	1,114.1	12,983.0	14,664.1
Durable goods	1,078.0	1,261.3	450.8	543.0	626.6	717.8	7,643.1	9,071.9
Nondurable goods	694.8	727.3	312.9	330.7	381.6	396.3	5,339.9	5,572.2
Transportation and public utilities	379.1	427.9	217.9	251.6	160.5	175.4	4,395.4	5,131.5
Wholesale and retail trade	1,186.4	1,314.5	506.0	579.1	679.9	734.4	7,873.5	8,925.9
Wholesale trade	346.2	379.8	160.4	181.1	185.6	198.1	2,496.1	2,910.3
Retail trade	840.2	934.7	345.6	398.0	494.3	536.3	5,377.4	6,015.6
Finance, insurance, and real estate	95.3	98.6	42.0	45.1	53.1	53.3	622.6	691.0
Services	759.1	820.5	355.9	393.9	402.8	426.0	5,534.4	6,525.9
INJURIES								
Private sector 3/	4,748.0	5,294.8	2,140.3	2,449.7	2,604.5	2,841.1	36,373.5	41,921.8
Agriculture, forestry, and fishing 3/	84.6	90.2	44.1	46.3	40.3	43.7	659.2	699.7
Mining 4/	77.9	92.9	41.7	51.4	36.0	41.1	1,170.0	1,552.0
Construction	489.2	575.9	207.9	256.5	280.7	318.6	3,913.0	4,741.6
Manufacturing	1,712.9	1,916.1	738.6	841.8	973.6	1,073.6	12,440.0	13,944.5
Durable goods	1,042.0	1,217.5	436.5	524.5	605.1	692.4	7,323.9	8,654.2
Nondurable goods	670.9	698.7	302.1	317.3	368.6	381.2	5,116.1	5,290.3
Transportation and public utilities	374.0	422.1	215.7	249.3	157.7	172.0	4,369.5	5,086.0
Wholesale and retail trade	1,177.1	1,302.9	502.5	574.3	674.1	728.0	7,806.8	8,833.6
Wholesale trade	342.5	374.9	159.0	179.3	183.3	195.3	2,472.8	2,871.3
Retail trade	834.6	928.0	343.5	395.0	490.8	532.7	5,334.0	5,962.3
Finance, insurance, and real estate	93.6	96.7	41.2	44.3	52.3	52.2	603.6	669.0
Services	738.6	798.1	348.5	385.8	389.8	411.9	5,411.3	6,395.5
ILLNESSES								
Private sector 3/	106.1	124.8	42.4	51.8	63.1	72.3	827.9	1,061.9
Agriculture, forestry, and fishing 3/	3.5	3.4	1.0	1.1	2.5	2.3	9.6	9.9
Mining 4/	1.0	1.3	.5	.6	.5	.6	8.9	8.8
Construction	5.4	6.1	2.0	2.2	3.2	3.8	31.8	53.3
Manufacturing	59.8	72.4	25.2	31.9	34.6	40.5	543.0	699.7
Durable goods	36.0	43.9	14.4	18.5	21.6	25.3	319.3	417.8
Nondurable goods	23.9	28.6	10.8	13.4	13.0	15.1	223.8	281.9
Transportation and public utilities	5.0	5.8	2.1	2.3	2.8	3.4	25.8	45.5
Wholesale and retail trade	9.3	11.6	3.5	4.8	5.8	6.5	66.7	92.4
Wholesale trade	3.7	4.9	1.4	1.8	2.3	2.8	23.3	39.0
Retail trade	5.6	6.7	2.1	3.0	3.5	3.6	43.4	53.4
Finance, insurance, and real estate	1.6	1.9	.8	.8	.8	1.0	19.0	22.0
Services	20.5	22.4	7.3	8.1	13.0	14.1	123.1	130.4

1/ To maintain comparability with the rest of the series, a statistical method was used for generating the estimates to represent the small nonfarm employers in low-risk industries who were not surveyed for 1983 and 1984. The estimating procedure involved averaging the data reported by small employers for the 1980, 1981, and 1982 surveys.

2/ Includes fatalities.

3/ Excludes farms with fewer than 11 employees.

4/ Excludes independent mining contractors.

NOTE: Because of rounding, components may not add to the totals. The difference between the number of total cases and the sum of the lost workday cases and nonfatal cases without lost workdays may not equal the fatality estimates.

Table 3. Occupational injury and illness incidence rates per 100 full-time workers, 1973-84 1/

Year	Injuries and Illnesses				Injuries			
	Total cases	Lost workday cases	Nonfatal cases without lost workdays	Lost workdays	Total cases	Lost workday cases	Nonfatal cases without lost workdays	Lost workdays
1973..........	11.0	3.4	7.5	53.3	10.6	3.3	7.3	51.2
1974..........	10.4	3.5	6.9	54.6	10.0	3.4	6.6	53.1
1975..........	9.1	3.3	5.8	56.1	8.8	3.2	5.6	54.6
1976..........	9.2	3.5	5.7	60.5	8.9	3.4	5.5	57.8
1977..........	9.3	3.8	5.5	61.6	9.0	3.7	5.3	60.0
1978 2/......	9.4	4.1	5.3	63.5	9.2	4.0	5.2	62.1
1979 2/......	9.5	4.3	5.2	67.7	9.2	4.2	5.0	66.2
1980..........	8.7	4.0	4.7	65.2	8.5	3.9	4.6	63.7
1981..........	8.3	3.8	4.5	61.7	8.1	3.7	4.4	60.4
1982..........	7.7	3.5	4.2	58.7	7.6	3.4	4.1	57.5
1983 2/......	7.6	3.4	4.2	58.5	7.5	3.4	4.1	57.2
1984 2/......	8.0	3.7	4.3	63.4	7.8	3.6	4.2	61.6

1/ The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as: (N/EH) X 200,000, where

N = number of cases or lost workdays
EH = total hours worked by all employees during calendar year
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

2/ To maintain comparability with the rest of the series, a statistical method was used for generating the estimates to represent small nonfarm employers in low-risk industries who were not surveyed.

NOTE: Data for 1976-84 excludes farms with fewer than 11 employees.

Table 4. Occupational injury incidence rates by industry, 1983 and 1984 1/

Industry 2/	SIC code 3/	1984 annual average employment (000's) 4/	Incidence rates per 100 full-time workers 5/							
			Total cases 6/		Lost workday cases		Nonfatal cases without lost workdays		Lost workdays	
			1983	1984	1983	1984	1983	1984	1983	1984
Private sector 7/		78,983.8	7.5	7.8	3.4	3.6	4.1	4.2	57.2	61.8
Agriculture, forestry, and fishing 7/		933.8	11.5	11.5	6.0	5.9	5.5	5.6	89.5	89.4
Agricultural production 7/	01-02	485.0	13.1	13.0	6.8	6.6	6.3	6.4	99.6	98.8
Agricultural services	07	418.6	9.6	9.8	5.0	5.0	4.6	4.8	76.4	72.7
Forestry	08	17.5	9.8	13.5	5.5	8.3	4.3	5.2	96.0	184.4
Fishing, hunting, and trapping	09	12.7	4.8	6.0	2.9	3.8	1.6	2.1	72.1	112.8
Mining 8/		974.0	8.3	9.5	4.4	5.3	3.8	4.2	124.1	159.3
Metal mining 8/	10	55.6	5.9	6.1	3.4	3.4	2.5	2.6	89.9	95.6
Anthracite mining 8/	11	2.8	6.7	7.1	6.1	6.3	.5	.7	470.4	381.4
Bituminous coal and lignite mining 8/	12	194.6	7.0	6.9	5.5	5.3	1.5	1.4	187.1	191.5
Oil and gas extraction	13	612.7	9.6	11.7	4.6	5.9	5.0	5.8	119.7	172.1
Nonmetallic minerals, except fuels 8/	14	108.7	3.9	3.9	2.6	2.7	1.2	1.2	65.5	72.7
Construction		4,345.0	14.7	15.4	6.2	6.9	8.4	8.5	117.3	126.7
General building contractors	15	1,157.5	14.2	15.3	6.1	6.9	8.1	8.4	112.0	120.5
Heavy construction contractors	16	764.6	15.2	14.7	6.1	6.3	9.1	8.3	121.7	130.8
Special trade contractors	17	2,422.4	14.6	15.7	6.3	7.0	8.3	8.6	118.0	128.2
Manufacturing		19,412.0	9.7	10.2	4.2	4.5	5.5	5.7	70.6	74.2
Durable goods		11,522.0	10.0	10.7	4.2	4.6	5.8	6.1	70.3	76.3
Lumber and wood products	24	706.8	18.1	19.3	9.1	9.8	9.0	9.5	161.4	169.8
Furniture and fixtures	25	487.5	13.8	14.9	5.6	6.3	8.2	8.7	80.2	97.7
Stone, clay, and glass products	32	595.4	12.8	13.3	5.9	6.4	6.9	6.9	109.4	117.3
Primary metal industries	33	858.4	12.1	13.0	5.3	6.0	6.7	7.0	101.2	112.7
Fabricated metal products	34	1,464.2	14.6	15.6	5.9	6.5	8.7	9.1	92.4	100.9
Machinery, except electrical	35	2,196.8	9.5	10.3	3.5	4.0	6.0	6.4	55.9	62.5
Electric and electronic equipment	36	2,208.1	6.0	6.4	2.4	2.6	3.6	3.8	36.9	40.0
Transportation equipment	37	1,906.3	8.0	8.9	3.5	4.0	4.5	4.9	62.0	65.6
Instruments and related products	38	714.1	4.9	5.1	2.0	2.0	2.9	3.0	32.7	33.4
Miscellaneous manufacturing industries	39	384.2	9.5	10.0	3.8	4.1	5.7	5.9	63.6	66.7
Nondurable goods		7,890.0	9.2	9.4	4.2	4.3	5.0	5.1	70.5	71.1
Food and kindred products	20	1,618.6	15.7	15.8	7.5	7.6	8.2	8.1	124.0	122.7
Tobacco manufactures	21	64.8	6.5	7.6	2.9	3.2	3.6	4.4	42.6	51.4
Textile mill products	22	746.0	7.3	7.8	2.7	3.0	4.5	4.8	50.2	52.3
Apparel and other textile products	23	1,196.6	6.3	6.5	2.3	2.4	3.9	4.1	39.2	38.9
Paper and allied products	26	681.2	9.8	10.2	4.4	4.6	5.4	5.5	88.6	91.9
Printing and publishing	27	1,372.4	6.4	6.4	2.8	2.9	3.6	3.5	43.6	44.6
Chemicals and allied products	28	1,048.1	5.2	5.0	2.4	2.3	2.8	2.7	41.2	39.4
Petroleum and coal products	29	188.8	5.2	5.0	2.4	2.4	2.8	2.6	46.1	53.1
Rubber and miscellaneous plastics products	30	781.5	12.7	13.1	6.1	6.2	6.6	6.9	97.4	98.9
Leather and leather products	31	192.2	9.2	9.7	4.0	4.3	5.2	5.4	73.4	79.5
Transportation and public utilities		5,171.0	8.1	8.6	4.7	5.1	3.4	3.5	94.4	104.2
Railroad transportation 8/	40	368.6	7.8	8.6	5.2	5.8	2.6	2.8	76.1	92.6
Local and interurban passenger transit	41	268.9	9.5	8.9	5.3	5.3	4.2	3.6	113.1	113.7
Trucking and warehousing	42	1,324.3	13.3	14.5	8.0	9.1	5.2	5.4	185.1	206.1
Water transportation	44	199.2	10.7	12.9	6.4	7.2	4.3	5.6	228.5	267.4
Transportation by air	45	493.0	12.6	12.9	7.2	7.4	5.4	5.6	96.7	107.0
Pipelines, except natural gas	46	19.1	4.1	4.1	1.5	1.7	2.6	2.4	24.7	40.5
Transportation services	47	255.9	3.4	3.9	1.8	2.2	1.6	1.7	37.8	37.1
Communication	48	1,342.9	2.9	2.6	1.5	1.4	1.4	1.2	26.8	24.2
Electric, gas, and sanitary services	49	898.9	7.1	7.2	3.6	3.6	3.5	3.6	61.0	58.7
Wholesale and retail trade		22,134.0	7.2	7.4	3.1	3.2	4.1	4.1	47.4	50.0
Wholesale trade		5,550.0	6.9	7.2	3.2	3.4	3.7	3.7	50.1	54.8
Wholesale trade--durable goods	50	3,272.0	6.3	6.6	2.6	2.9	3.7	3.7	39.2	44.4
Wholesale trade--nondurable goods	51	2,228.0	7.8	7.9	4.1	4.1	3.7	3.7	65.7	70.0
Retail trade		16,584.0	7.2	7.5	3.0	3.2	4.2	4.3	46.3	47.9
Building materials and garden supplies	52	658.3	8.5	9.6	3.7	4.4	4.8	5.1	57.7	65.5
General merchandise stores	53	2,277.6	9.6	9.7	4.0	4.1	5.6	5.6	55.7	60.0
Food stores	54	2,654.7	10.4	10.8	4.4	4.9	5.9	5.9	79.1	85.5
Automotive dealers and service stations	55	1,802.1	6.8	6.9	2.4	2.7	4.3	4.2	39.4	46.1
Apparel and accessory stores	56	1,002.4	2.4	2.7	1.0	1.1	1.4	1.6	17.7	19.4
Furniture and home furnishings stores	57	676.7	3.6	4.2	1.8	2.1	1.8	2.1	30.2	36.6
Eating and drinking places	58	5,403.3	7.7	7.7	3.0	3.0	4.7	4.7	40.0	34.1
Miscellaneous retail	59	2,110.9	3.6	3.9	1.7	1.9	1.9	1.9	31.1	33.7

See footnotes at end of table.

Table 4. Continued--Occupational injury incidence rates by industry, 1983 and 1984 1/

Industry 2/	SIC code 3/	1984 annual average employment (000's) 4/	Incidence rates per 100 full-time workers 5/							
			Total cases 6/		Lost workday cases		Nonfatal cases without lost workdays		Lost workdays	
			1983	1984	1983	1984	1983	1984	1983	1984
Finance, insurance, and real estate.....		5,682.0	1.9	1.9	0.8	0.9	1.1	1.0	12.4	13.2
Banking..............................	60	1,676.2	1.6	1.5	.6	.7	1.0	.9	7.8	10.4
Credit agencies other than banks.......	61	697.7	1.3	1.4	.5	.6	.8	.8	6.0	7.7
Security, commodity brokers, and services............................	62	339.7	.8	.7	.3	.3	.5	.4	3.7	4.7
Insurance carriers....................	63	1,233.7	1.7	1.7	.7	.7	1.0	.9	12.1	11.2
Insurance agents, brokers and service.	64	519.3	.7	.8	.3	.3	.4	.5	-	4.4
Real estate...........................	65	1,059.2	4.3	4.4	2.2	2.2	2.1	2.2	34.2	33.1
Services.................................		20,334.8	4.9	5.0	2.3	2.4	2.6	2.6	36.2	40.3
Hotels and other lodging places.......	70	1,271.0	9.0	9.7	3.7	4.1	5.3	5.6	53.8	62.8
Personal services......................	72	1,023.9	2.8	2.8	1.3	1.4	1.5	1.4	20.2	24.3
Business services......................	73	4,075.6	4.6	4.8	2.1	2.2	2.4	2.6	33.0	38.8
Auto repair, services, and garages....	75	683.2	7.0	6.8	3.2	3.2	3.7	3.6	51.5	52.3
Miscellaneous repair services.........	76	315.1	7.7	8.1	3.7	3.9	4.0	4.2	61.0	67.9
Motion pictures.......................	78	219.8	4.0	3.9	1.6	1.7	2.4	2.3	28.5	29.9
Amusement and recreation services.....	79	801.1	8.0	8.8	3.6	3.8	4.4	5.0	52.6	51.1
Health services.......................	80	6,104.1	6.0	6.0	3.1	3.3	2.9	2.8	49.2	55.9
Legal services........................	81	649.7	.4	.5	.2	.2	.2	.2	4.0	4.5
Educational services..................	82	1,247.3	3.3	3.2	1.4	1.3	1.9	1.9	18.1	21.2
Social services.......................	83	1,241.4	5.1	5.2	2.4	2.5	2.7	2.8	36.8	38.5
Museums, botanical, and zoological gardens............................	84	42.1	6.2	6.0	2.6	2.7	3.6	3.3	31.7	38.9
Miscellaneous services................	89	1,158.1	1.2	1.4	.5	.6	.7	.7	7.5	8.6

1/ To maintain comparability with the rest of the series, a statistical method was used for generating the estimates to represent the small nonfarm employers in low-risk industries who were not surveyed for 1983 and 1984. The estimating procedure involved averaging the data reported by small employers for the 1980, 1981, and 1982 surveys.

2/ Totals for divisions include data for industries not shown separately.

3/ Standard Industrial Classification Manual, 1972 Edition, 1977 Supplement.

4/ Employment is expressed as an annual average and is derived primarily from the BLS-State Employment and Earnings Survey. Annual average employment for the agriculture, forestry, and fishing division is a composite of employment data for agricultural production (SIC's 01 and 02) as obtained from the Annual Survey of Occupational Injuries and Illnesses and employment data for agricultural services (SIC 07); forestry (SIC 08); and fishing, hunting, and trapping (SIC 09) as obtained from State unemployment insurance programs.

5/ The incidence rates represent the number of injuries or lost workdays per 100 full-time workers and were calculated as: (N/EH) x 200,000, where

N = number of injuries or lost workdays
EH = total hours worked by all employees during calendar year
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

6/ Includes fatalities. Because of rounding, the difference between the total and the sum of the rates for lost workday cases and nonfatal cases without lost workdays may not equal the fatality rate.

7/ Excludes farms with fewer than 11 employees.

8/ Data conforming to OSHA definitions for employers in the railroad industry and for mining operators in coal, metal, and nonmetal mining were provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation and the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and nonmetal mining industries.

NOTE: Dashes indicate data that do not meet publication guidelines.
n.a. = data not available.

Table 5. Occupational injury incidence rates by industry division and employment size, 1983 and 1984 1/

Industry division	Incidence rates per 100 full-time workers 2/							
	1 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 or more
Private sector 3/:								
1983	3.4	7.3	10.0	10.6	9.5	8.3	6.7	5.3
1984	3.6	7.9	10.6	11.1	9.9	8.7	6.8	5.4
Agriculture, forestry, and fishing 3/:								
1983	6.1	10.2	14.0	15.6	13.7	14.4	29.3	21.7
1984	6.3	9.8	13.4	15.3	17.0	16.4	25.5	23.4
Mining 4/:								
1983	6.7	10.3	13.0	8.4	7.4	5.4	2.5	.5
1984	7.0	11.7	15.2	11.0	7.2	6.0	3.1	.5
Construction:								
1983	8.6	17.0	20.7	21.4	17.4	13.3	9.3	10.8
1984	9.4	17.4	21.2	21.3	18.9	13.1	9.6	8.3
Manufacturing:								
1983	7.5	12.1	14.2	13.6	10.8	8.5	5.9	4.5
1984	7.5	12.6	15.0	14.2	11.6	9.2	6.2	4.7
Durable goods:								
1983	9.2	14.6	16.3	15.0	11.2	8.5	5.7	4.5
1984	10.0	15.4	17.5	15.8	12.5	9.6	6.2	4.7
Nondurable goods:								
1983	4.8	8.8	11.8	12.1	10.3	8.4	6.2	4.5
1984	3.8	8.7	12.0	12.6	10.5	8.7	6.2	4.6
Transportation and public utilities:								
1983	4.8	9.3	11.1	9.6	7.5	8.5	6.7	7.1
1984	5.5	9.9	11.8	9.6	8.0	8.7	7.8	7.8
Wholesale and retail trade:								
1983	2.8	6.5	9.3	10.6	11.6	11.7	11.4	10.3
1984	2.8	6.8	9.6	11.1	11.0	12.4	10.9	11.0
Wholesale trade:								
1983	3.7	6.9	9.4	9.7	10.2	9.6	8.1	-
1984	3.3	7.6	9.7	10.7	9.4	10.1	7.0	-
Retail trade:								
1983	2.5	6.3	9.3	11.0	12.1	12.4	12.0	10.4
1984	2.6	6.3	9.5	11.2	11.6	13.1	11.5	11.0
Finance, insurance, and real estate:								
1983	1.2	1.6	2.1	2.4	2.8	2.5	2.1	1.9
1984	1.3	1.8	2.1	2.2	2.6	2.5	1.9	1.6
Services:								
1983	1.7	3.2	5.3	7.3	7.2	7.2	7.1	5.8
1984	1.7	3.4	5.9	7.5	7.6	7.0	6.9	5.3

1/ To maintain comparability with the rest of the series, a statistical method was used for generating the estimates to represent the small nonfarm employers in low-risk industries who were not surveyed for 1983 and 1984. The estimating procedure involved averaging the data reported by small employers for the 1980, 1981, and 1982 surveys.

2/ The incidence rates represent the number of injuries per 100 full-time workers and were calculated as (N/EH) X 200,000, where

N = number of injuries
EH = total hours worked by all employees during calendar year
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

3/ Excludes farms with fewer than 11 employees.

4/ Excludes independent mining contractors.

NOTE: Dashes indicate data that do not meet publication guidelines.

Mr. GAYDOS. Mr. Willmore, I understand that you have a statement that you would like to put in the record.

Mr. WILLMORE. Yes, Mr. Chairman.

The Department of Justice sent you a letter earlier this week signed by Phillip Brady. We would appreciate inclusion of the letter in the record as the formal statement of the Department of Justice.

Mr. GAYDOS. Without objection, the letter as submitted by the Department of Justice will be made a part of the formal proceedings.

[The letter follows:]

U.S. Department of Justice

Office of Legislative and Intergovernmental Affairs

Office of the Assistant Attorney General

Washington, D.C. 20530

NOV 15 1985

The Honorable Joseph M. Gaydos
Chairman
Subcommittee on Health and Safety
Committee on Education and Labor
House of Representatives
Washington, D.C. 20515

Dear Chairman Gaydos:

The purpose of this letter is to present the views of the Department of Justice on H.R. 1309, a bill "to establish a system for identifying, notifying, and preventing illness and death among workers who are at increased or high risk of occupational disease and for other purposes." The Department of Health and Human Services reported to you on this bill by letter dated November 14, 1985. This letter supplements the letter of the Department of Health and Human Services by providing additional advice on the effect of Section 5 ("Employee Notification and Counseling") of H.R. 1309.

Section 5 would require the Secretary of HHS to notify each individual of a category of employees determined to be at increased risk of occupational disease of, inter alia, the "nature and degree of risk," the "disease or diseases" associated with the exposure, any known "latency periods," the "size, nature, and composition of the population at risk," and to provide "counseling information," including information on the appropriate type of "medical monitoring" and the appropriate "personal" medical monitoring program.

While we firmly agree with the views of the Department of Health and Human Services, we would raise the additional serious concern that an important effect of this legislation would be to impose potentially enormous tort liability upon the United States. Because such tort liability could well amount to hundreds of millions, if not billions of dollars, and add thousands of new lawsuits to the already burgeoning tort dockets of the federal courts, the Department of Justice strongly opposes enactment of H.R. 1309.

Unlike other state and federal statutes, which impose duties to provide a safe work place directly on persons responsible for employee working conditions at the work place, Section 5 would require the federal government to warn employees. Under the Federal Tort Claims Act, 28 U.S.C. §§ 1346(b), 2671-2680, the United States may be liable in essentially the same manner as a private person may be liable for a tort, subject to the specific exceptions and exclusions set forth in the Federal Tort Claims Act. The undertakings required by Section 5 could be the predicate of a duty to warn employees and result in potential liability by extension of common law principles of tort liability. See, e.g. §323 of the Restatement of Torts (3d). Thus, the United States may be liable for the consequences of its undertaking, however gratuitous, to provide a warning, imposed by the bill, even though it otherwise would have no potential liability.

It seems clear that the contents of the notification set forth in Section 5(b) have a very real potential for the imposition of tort liability on the United States. Terminological and semantic disputes regarding whether the "nature and degree of risk" is adequately described in a notification or whether the notification is inadequate in the retrospective view of a court faced with a suit by a person suffering from an occupational disease are grist for the mill of torts litigation.

Similarly, the bill's requirement that the "disease or diseases" be included in a notification will inevitably give rise to litigation over whether another disease or diseases should have been included in the notification. For instance, after there was public notification that one illness was associated with administration of the swine flu vaccine under the Swine Flu Immunization Program of 1976, many claims and suits were filed alleging that other maladies were likewise associated with the Swine Flu Program. Most of the suits filed subsequently, pursuant to the terms of the Swine Flu Program of 1976, involved illnesses other than the one illness which the Department of Health and Human Services stated was associated with the swine flu vaccine.

Likewise, Section 5(b)(4) of the bill requires that "latency periods" be specified. Litigation is certain to be brought by persons whose injuries are not within the terms specified in the notification alleging that the information provided is insufficiently precise or complete, or that the data upon which it is based is incomplete or inaccurate.

Great potential for protracted and costly litigation also flows from the requirement that the "size, nature, and composition of the population at risk" be included in a notification since individuals not within the defined group will challenge the notification as inadequate in that it does not include them within the targeted "population at risk." Retrospective litigation over what information should have been provided in a notification could well lead to tort recoveries against the United States for individuals who were on or beyond the periphery of the groups targeted in a notice. Claims for mental anguish, loss of employment due to inaccurate notices, as well as claims based upon theories such as those outlined above, could likewise be expected. In addition, the problems of determining causation would be significant. In many instances it could be highly difficult to trace an individual's current condition to his or her work status -- particularly when that condition may be more directly attributable to other factors, including that individual's lifestyle.

The Department, of course, would vigorously contest such tort suits against the United States. However, the large number of such lawsuits would require substantial resources to defend. Even one personal injury award can result in a judgment for several million dollars predicated upon pain and suffering and pecuniary losses due to injuries (such as cancers) that might be the subject of notification. Given the broad and vague terminology of the bill and the vagaries of the litigation process, it is essential that the Congress carefully consider the provision's obvious potential for tort litigation.

Finally, it should be all too obvious that employees who believe themselves to have been exposed to a toxic substance, will find the United States, with its "deep pocket," a far more attractive target than their employers who, under current interpretations of the law, in most instances will be immune from suit because of the exclusivity of remedies under state workers' compensation.

In short, new duties on the part of the federal government, arising from the broad and vague terminology used in Section 5, have the very real potential of making the United States responsible -- almost as an insurer -- for private occupational toxic injuries. Accordingly, we oppose enactment of this legislation.

We are advised by the Office of Management and Budget that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

Jack E. Perkins for

Phillip D. Brady
Acting Assistant Attorney General

cc: Honorable Rod Chandler

Mr. **Willmore**. If you have a moment, I would like to summarize very briefly the concerns of the Department of Justice.

I head the Torts Branch of the Department of Justice, and in that capacity supervise all the tort litigation involving the United States.

Our concern arises from the fact this legislation could readily lead to hundreds if not thousands of tort lawsuits against the United States, and could consequently lead to hundreds of millions of dollars, perhaps even billions of dollars, of liability by the United States based on failure to warn or inadequate or deficient warnings.

Mr. **Gaydos**. You mean this proposed legislation?

Mr. **Willmore**. Yes, sir.

Mr. **Gaydos**. All right.

Mr. **Willmore**. Very much so.

The reason for this is that this legislation does something very important from a legal perspective. It shifts the responsibility to warn workers from the employers to the Government.

When you shift that responsibility, as a legal matter you also shift the duty upon which tort liability is predicated.

If these workers are not warned, or if they are warned inadequately, then the breach of the duty is a breach by the United States, and potentially the United States may be liable to those workers for any injuries that flow from that breach.

Now what kind of failure could lead to that kind of liability? Well, it's not just the failure to warn as such. In fact, much of the liability could flow after the United States has warned. Such question would include questions such as who was warned; were the right parties warned; were the right diseases warned of; was the right time period included in the warning; was the nature of the risk correctly stated; and, was this warning sufficiently alarmist. In this regard, the United States' liability could be predicated on a warning that was too alarmist as well as on a warning that was insufficiently alarmist. In addition, the warned of latency periods could potentially lead to Federal liability.

But perhaps the most likely source of Federal liability would be the actions that the United States takes to track down workers who have left the employment and who are part of the population that has to be warned.

As the chairman understands, we probably are not going to be able to track down everybody. But, how much effort does the United States have to undertake in this regard? If it does not undertake enough effort, it may be negligent and it may be liable to that worker for all injuries that that worker has as a result of the failure to warn.

Now, as the subcommittee knows, tort law does this kind of analysis with the benefit of hindsight. And hindsight always has 20/20 vision. So, juries or courts will be determining after the injury occurred whether the warning was adequate—that is, whether the United States did enough to warn workers. And if it is determined that that is not the case, then the United States may be found liable. And our concern is that that liability may be very substantial and, indeed, that thousands of tort lawsuits may flow from this legislation.

I would make one other observation. We are not talking only about lawsuits by workers against the United States. Perhaps even more problematic are lawsuits that are going to come from employers and manufacturers of the involved chemicals against the United States.

This is exactly what has happened in the asbestos litigations in which the United States now faces over 6 billion dollars of claims under the Federal Tort Claims Act. Over 98 percent of those claims are by manufacturers of asbestos. And one of their theories of liability is that the United States should have warned the workers who were exposed to asbestos. That is, they are alleging that the failure of the United States to warn the workers caused their liability and thus makes the United States liable to the manufacturers.

Now, these are lawsuits that are presently being contested in court every day.

In the testimony of the Department of Labor there are a number of references to the effect of this legislation on the workmen's compensation system. And I think that is very important that the subcommittee take those concerns into consideration.

But I think it is also very important that the subcommittee understand the effect of this legislation on tort litigation. And this effect is going to be a very substantial. It will affect the private sector significantly. It probably will lead to a great deal of tort litigation against the manufacturers of the chemicals that will be the subject of these notices. But it also will lead to a great deal of litigation against the United States. That is, in essence, the Department's concern.

Mr. GAYDOS. I'm sure that in formulating your position you have checked the record, in fact you've alluded to the existing records as they pertain to asbestos claims.

Mr. WILLMORE. Yes.

Mr. GAYDOS. Now, has the Justice Department lost any of those claims to date?

Mr. WILLMORE. The Justice Department has not lost any asbestos claims to date.

However, there is a very important difference. In the asbestos claims, there was no legal duty on the part of the United States to warn the asbestos workers. That is, indeed, critical to our defense.

We have made that defense in a number of cases, and have been successful in that regard. This bill changes the law by creating that legal duty.

What our litigation position would be vis-a-vis these billions of dollars of claims if this bill had been enacted 30, 40, or 50 years ago I cannot even hazard to guess. But I think we would be in a very different litigation posture.

Mr. GAYDOS. I'm going to look forward to the testimony from the New Jersey people here that are scheduled, I believe next, to see if they have had any claims and what the difference in their statute is as compared to ours, et cetera.

So, maybe you want to hang around and listen to it.

Mr. WILLMORE. Well, I have to go back to the Department.

I would simply note, of course, that New Jersey—I assume these are officials of the State or of the local government—has its own

Tort Claims Act, and that it may have very different defenses and liabilities available under its act than the United States has under its act.

We, in fact, litigate inadequate or deficient warning cases all the time, not just in the context of workers, but all sorts of claimants who allege they should have been warned by the Government. It is a very common sort of litigation that we have to deal with and struggle with as the lawyers for the United States in defending these tort lawsuits. And this will have a very significant effect on the kind of litigation that will be brought against the United States for failure to warn or deficient warning.

Mr. GAYDOS. Well, apparently you've done a lot of research, and you take a pretty strong position. May I presume that you will cooperate with the committee if we should be in contact with the——

Mr. WILLMORE. Certainly.

Mr. GAYDOS [continuing]. Justice Department and maybe took a look at the liability aspect, and maybe make some changes if it's required, or maybe a new approach to it?

Mr. WILLMORE. Absolutely, Mr. Chairman.

Mr. GAYDOS. Well, I appreciate that on behalf of the committee.

Let me call Mr. Hayes at this time.

Mr. Hayes.

Mr. HAYES. Well, thank you, Mr. Chairman. But the Deputy Assistant Attorney General's position is quite clear. I don't want to misquote you, but as I understood it you're saying, in effect, that we don't really need notification, if we do, it's too risky.

Mr. WILLMORE. Well, I did not say that.

Mr. HAYES. Well, then straighten me out then.

Mr. WILLMORE. What I said is the following. Up until now, as we understand the entire system of notification, the duty to notify has been placed on the employer. That legal responsibility and the corresponding tort duty is on the shoulders of the employer.

What this legislation does is to put it on the shoulders of the United States. And to the extent that a warning is inadequate, the liability travels to the United States when you shift the duty. The committee has to take into consideration that under this particular scheme it is setting the United States up as a tort defendant for a lot of liability as, with the benefit of hindsight, courts determine that a warning was not sufficiently alarmist, that the right diseases were not mentioned, or that it did not do enough to find the workers who had left the plant. And that can lead to a great deal of liability. That is what we are trying to tell the subcommittee.

Mr. HAYES. Could statutes administered as they are now leave workers in the category where the higher risks of certain diseases, you know—and employers have had an opportunity, but have not lessened this risk, do you feel that is a responsibility on the part of——

Mr. WILLMORE. Oh.

Mr. HAYES [continuing]. The Government to fill that vacuum when——

Mr. WILLMORE. There are different——

Mr. HAYES [continuing]. This is what H.R. 1309 attempts to do?

Mr. WILLMORE. Well, there are different ways, of course, that the United States can fill that vacuum. For example, take the situation of drugs, which also involves notification, where often users of drugs have to be notified of certain side effects.

We do not put the duty upon the United States to go out and notify persons who use drugs or vaccines of the dangers or side effects of using those drugs or vaccines.

We deal with warnings, in many instances, as part of the licensing process and require the manufacturer of the drug or the vaccine to either notify the patients directly or notify the doctor and rely on the doctor to notify his or her patients.

That is the way it generally works—that the warning is required by law, with whatever sanctions are appropriate—but that the Government does not bear the ultimate burden of providing the warning itself. That is what is so different about this legislation from a lot of other notification schemes, not just in the employment context, but as to many government activities designed to protect the public by ensuring that the public is notified of important information.

Mr. **Hayes**. So, Federal law, now that the—well, 55-mile-an-hour speed limit, you know, that come from the Federal Government to save people. That's what it's blown to do.

Here we're trying to do—trying to find a way through legislation to protect workers who—that's—to—protected by virtue of their employment to certain diseases which have been found through research to be fairly accurate. And all H.R. 1309 does—it says that we ought to provide at least a requirement that people be notified, and we've tried to work it in ways and means to try to prevent certain things from happening.

So, I just totally disagree with your assessment of what the intent of H.R. 1309 is.

Thank you.

Mr. **Gaydos**. Pat, let me ask you. Under the standard the employer does notification, is that correct?

But isn't there a provision that OSHA would do some notification itself?

Mr. **Tyson**. Under hazard communication, sir?

Mr. **Gaydos**. Yes.

Mr. **Tyson**. No. The hazard communication standard requires the employer——

Mr. **Gaydos**. The employer.

Mr. **Tyson** [continuing]. To have the material safety data sheet at the workplace, label the toxic substance in such a way that the hazards are made known to the employee.

Mr. **Gaydos**. No variation of that? Don't you step in at times? It seems my recollection is that you're doing some notification in lieu thereof.

I'm just wondering whether or not the Attorney General here has raised a question, you know, as to even the existing act, whether there's some potential in there.

We'll take a look at it though and study it. You may—Mr. Jeffords, do you have enough time now? OK.

Mr. **Jeffords**. Yes. Right. I'm ready, ready to go.

Let me finish with the tort question.

However, isn't that something that can be taken care of in this legislation in the sense that we could either state that it does not establish liability for the purposes of Tort Claims Act or change the notification requirements to the employer? Isn't that possible, either of those things?

Mr. **Willmore**. Certainly, the Federal Tort Claims Act is a Federal statute, and Congress can exempt this from the Federal Tort Claims Act or take some other action, such as your suggestion, to avoid placing this liability on the United States.

I would make two comments in that regard, however.

First, it would have to be very explicit and express because our experience with the courts has been the courts are loath to deny persons the opportunity to sue under the Federal Tort Claims Act. Unless it is very, very clear that that is what the Congress wants the courts will not do it.

The second comment I would make is that that, of course, would only protect the Government. While I am not here to make the case for the manufacturers of these chemicals, the subcommittee may want to take into consideration that a lot of litigation will also flow from claims against those companies.

Workers, as you know, by in large cannot sue their employers because workers' compensation operates to bar them from suing their employer.

However, tort lawyers do not like to rely on workers' compensation remedies for a lot of reasons. They generally look for somebody to sue in a tort lawsuit. One possible party to sue is the United States. Another possible party is the manufacturer of the chemical.

Mr. **Gaydos**. I thought you were going to say the committee.

Mr. **Willmore**. Well, you, fortunately, have legislative immunity under the U.S. Constitution.

Mr. **Gaydos**. I hold my breath.

Mr. **Willmore**. And what you are suggesting would, of course, not take care of the latter problem.

That problem, however, could turn out to be very significant. It could lead to a great deal of litigation against these companies, which might or might not be justified under the facts.

I really cannot discuss the scientific and medical validity of these warnings. But, certainly, if you're going to receive a notice in the mail that informs you that you may have been exposed to a chemical, and included is a list of very devastating diseases that may result, after you have visited the doctor you are likely to visit a local lawyer and see what can be done about it.

I would point out that this will lead to a lot of tort litigation. That problem is going to be more difficult for this subcommittee to deal with than the liability of the United States. At least the subcommittee should understand that that is one of the consequences of this kind of legislation.

Mr. **Jeffords**. Let me continue then.

There's been criticism of the hazard communication standard which has published by OSHA in the sense that it's a one-shot deal, that you just require at one time to notify and to give information and then you're—then—well, unless some new chemical comes in or something, it's not a continuing obligation.

I wonder if you'd comment on that.

Mr. TYSON. Now, that provision or that comment that you made would only go to the issue of training, since training is required under the standard for new employees. The product itself, the labels on the product, will be there all the time. And the material safety data sheet, which fully explains the health effects and gives much more detail on the kinds of protections that the employee ought to be taking, is also always available and accessible.

Any time you introduce a new hazard in the workplace, there has to be additional training. That was the—what we figured to be or assumed to be—the best way of setting up the process.

It's not inconceivable to say that you could have retraining every year. And, in fact, most employers will probably do something like that.

We didn't feel like it was necessary in the regulation to mandate that specifically.

Mr. JEFFORDS. Along with that, another criticism which I'd like your comment on was that there are some 60,000 chemicals which are presently in use in various businesses around the country. Your notice requirement only affects about 2,000. Critics believe that there are many more that ought to be included.

I wonder if you would comment on that criticism.

Mr. TYSON. I would take very strong exception to the statement that our standard only applies to 2,000. Our standard applies to any toxic substance. If there are positive studies that show adverse health effects, our standard requires that that information be made known to the employees.

And the reason we didn't choose any one of a number of so-called lists of toxic substances is because everyone of them had some sort of problem in that they were incomplete. You know, the list is created today, it's out of date tomorrow.

We thought the much better approach, and this approach was endorsed by the third circuit in their review of the standard, was to require an evaluation by an employer of every substance that's in use in that workplace, and if there are adverse health effects associated with its use, those effects have to be made known to the employees.

Mr. JEFFORDS. Who determines whether adverse effects are associated with the use of that chemical?

Mr. TYSON. The employer has the determination, has the responsibility to make the determination. But it is guided by our standard which has certain thresholds which indicate certain things must be made known.

As I said, if there are positive studies that show adverse health effects, they have to be made known.

Mr. JEFFORDS. Thank you, Mr. Chairman.

Mr. GAYDOS. Another question, Mr. Hayes?

Mr. HAYES. No. No further questions.

Mr. GAYDOS. Well, thank you very much, gentlemen.

And, Mr. Tyson, as usual, you're pretty tough, but I'd like you to respond to some interrogatories should we find them necessary.

And we've already had the commitment from Mr. Willmore that he would respond. And we may be getting into that legal aspect a little more in detail.

So, thank you very much, gentlemen, for appearing.

Mr. **Tyson**. May I make a clarifying statement, Mr. Chairman?

Mr. **Gaydos**. Sure.

Mr. **Tyson**. I wanted to point out that I was in error and not you with respect to the interpretation of your proposed bill. It does only reference new standards under section 6(b), and, therefore, it would only involve, in terms of your priority——

Mr. **Gaydos**. It's the first error you've admitted before the committee since you've been appearing. [Laughter.]

Thank you. It wasn't necessary. We would have gone over that ourselves. Thank you very much.

Mr. **Tyson**. Thank you.

Mr. **Gaydos**. The Chair now calls Dr. Millar, Director of NIOSH. And we've been waiting for you, Doc.

Doctor, welcome again to the committee. And would you please identify those accompanying you for the record.

STATEMENT OF DR. J. DONALD MILLAR, DIRECTOR, NIOSH, ACCOMPANIED BY DICK GRIFFITH, OFFICE OF LEGISLATION AND REGULATORY POLICY, SOCIAL SECURITY ADMINISTRATION, AND DR. JAMES MELIUS, DIRECTOR OF THE DIVISION OF SURVEILLANCE, HAZARD EVALUATIONS, AND FIELD STUDIES, NIOSH

Dr. **Millar**. Good morning, Mr. Chairman. It's good to be with you again.

I am J. Donald Millar, Director of the National Institute for Occupational Safety and Health, Centers for Disease Control. I am here representing the Department of Health and Human Services.

We very much appreciate the opportunity to present our views on H.R. 1309 and to report to you on our activities concerning worker notification.

With me today, on my right, is Dr. James Melius, whom you've met before, who's Director of our Division of Surveillance, Hazard Evaluations, and Field Studies in Cincinnati. And on my left, is Mr. Richard Griffith of the Office of Legislative and Regulatory Policy, Social Security Administration.

Although we share the worker notification concerns of the bill's sponsors, we do not support H.R. 1309.

We feel strongly that additional legislation is not needed for us to proceed with worker notification. Worker notification is an integral part of much of our research at NIOSH. We notify workers of the results of all our field research. We share findings with employers, relevant unions or employee representatives, the Department of Labor, and appropriate State agencies.

In addition, for all studies initiated by a request for assistance from an employer or an employee representative through our Health Hazard Evaluation program, reports are sent to the requester and posted at the worksite for 30 days or sent directly to the affected employees.

Where we have examined individuals in conducting our studies, for example, in cross-sectional medical studies, we individually notify those involved of their individual results.

Aggregate findings also are distributed through the scientific literature and through special publications available to the public and media.

In the history of NIOSH, we have done approximately 3,800 field studies of workers. Of these, approximately 3,400 have been health hazard evaluations in which workers have been directly notified by posting results in the workplace as mentioned above.

Of the remaining approximately 400 studies, 38 were cross-sectional medical studies in which workers also were individually notified of study results; 18 were proportionate mortality studies in which we have examined only death certificates and in which there are no living individuals to notify; 130 were industrial hygiene studies in which there was no health outcome evaluated; and 121 were miscellaneous research efforts, for example, questionnaire studies, for which individual worker notification is not a relevant concern.

It is the remainder, that is some 86 studies, retrospective cohort mortality studies, about which most of the concern about worker notification has been raised.

In retrospective cohort mortality studies, we review personnel records from selected plants and determine if, as a group, the cohort or group of workers experienced more than the expected number of deaths from specific diseases.

Even though aggregate, overall study results have been made available by NIOSH in these studies, some people have expressed concern that surviving workers should be individually notified of study results so they can seek medical consultation or take other steps to get assistance if they desire to do so.

We in NIOSH are considering how best to conduct individual worker notification for past and future epidemiologic studies of this type.

Most importantly, though, if H.R. 1309 is enacted, we believe it will hinder our efforts in this area by establishing new bureaucratic structures and unfeasible policy criteria and by detracting from our ability to carry out our other research and training mandates.

Moreover, we view the scope of this legislation as too broad and not defined clearly enough for practical implementation.

In fact, if we use the criteria outlined in the bill to identify and designate workers for notification, we will designate as at risk those who may not be at increased risk.

Finally, the cost implications of the bill are considerable.

As Secretary Heckler indicated in her letter to the committee, we have the following specific concerns about the proposed legislation.

One, the worker notification program that would be established by H.R. 1309 is many times broader and more complex than any program currently envisioned by this Department and may well be impossible to accomplish.

The task of locating and individually notifying former workers who have actually been included in occupational exposure studies done by HHS can be difficult and costly.

Moreover, under the provisions of the bill, if the Secretary were to determine, "that a given class or category of employee is at risk of occupational disease," the Secretary would be required to locate all workers in that class or category in the United States and to notify each worker individually. In this case, the technical feasibility of notifying each individual in these potentially enormous populations or workers who may have had occupational exposure but may not have been included in any HHS study is questionable, and the costs are incalculable. For example, use of the Social Security records for such notification would be impractical.

Second, under current law, NIOSH has conducted studies that have resulted in identification of workers at risk of occupational disease.

However, the purpose of these studies was to identify, evaluate, control, and prevent work-related causes of injury and illness. The identification of workers at risk was an outcome of these efforts.

If NIOSH is directed to conduct studies for the single purpose of identifying additional workers at risk, we will have to divert research personnel and resources from our primary mandated responsibilities.

Three, the bill's 2-year deadline for identifying groups of workers at risk for each of the OSHA health standards is not feasible. The surveillance studies needed would each take approximately 3 years to complete. The hundreds of studies that would have to be conducted could not be completed in the next decade.

In general, the centers supported by NIOSH and NIEHS, excellent though they are, Mr. Chairman, in what they do, do not have the expertise to conduct the research to improve medical surveillance of employees exposed to occupational hazards, nor are they equipped to conduct surveillance and to provide medical treatment and family services to employees exposed to occupational hazards. Moreover, we do not consider this to be an appropriate Federal role.

Four, the cost implications of the bill are considerable.

The bill would require the proposed Risk Assessment Board to review the risks for all populations for which there is a permanent OSHA standard and make recommendations on these populations.

However, there is no acknowledgement that research would first have to be conducted to identify these populations. For the approximately 400 OSHA standards that the Risk Assessment Board is to review, the research would cost hundreds of millions of dollars. Specifically, the cost is estimated at about $300,000 per surveillance study. Numerous studies may have to be conducted for each of the OSHA standards.

Further, the bill appears to require the Social Security, Supplemental Security Income, Medicare, and Medicaid programs, and any other health care financing system to pay for medical testing and monitoring for their beneficiaries.

We also note, as you have just heard, Mr. Chairman, that the Department of Justice has raised concerns about potential tort liability suits against the Federal Government.

Five, the criteria in the bill for identifying workers for notification could lead to notifying many workers who, in actuality, are not at increased risk. This would cause unwarranted distress to these workers and their families.

The bill requires action on all populations for whom the risk occurs at a rate of 30 percent greater than in a comparable worker population not exposed to the hazardous occupation. This is a relative risk equivalent to a standardized mortality ratio of 130, or a relative risk of 1.3 times, or 130 percent of normal.

The choice of this level does not reflect consideration of the absolute nature of the risk. Without considering the confidence interval of risks of 1.3, it is possible that the actual risk could be normal rather than increased and only appear to be increased due to statistical variation.

A more comprehensive and carefully developed decision logic for evaluating studies to determine risk for workers included is essential to avoid unwarranted notifications.

In addition to these concerns, I should also point out that the legislation would require that all notification efforts involve individual worker notification. This is probably not feasible or even desirable. Even for studies in which it might be feasible, it might not be the most effective use of resources. Individual notification should be an option alongside various means for group notification.

The availability of demographic information on individuals, the probable effectiveness of various means of notification, and how the notification process may duplicate the OSHA Hazard Communication Standards for current workers have to be considered.

Now, Mr. Chairman, you also asked me to report to you on efforts of individual worker notification in which NIOSH has been involved.

In 1977, NIOSH began its first pilot project to notify workers individually. The project comprised 55 workers whose medical records were submitted to NIOSH pursuant to OSHA's regulation of 13 carcinogens. Under these regulations, employers are required to retain records of medical examinations of workers potentially exposed to these 13 carcinogens and to provide them to NIOSH upon termination of a worker's employment.

The project was completed in 1979. Of the workers contacted 49 percent responded by requesting NIOSH to send medical information to their physicians, which was done.

However, as far as we were able to determine from followup, none of these workers actually contacted their physicians.

In 1979, NIOSH initiated a second pilot project designed to evaluate problems inherent in notifying individual workers of their potential health risks, and to identify criteria and develop a conceptual model for subsequent individual worker notification efforts.

In selecting a study for this effort, we looked for a cohort on which we had demographic information: One, the agent to which workers were exposed was an indisputable carcinogen; two, the agent attacked a single organ, making the disease more easily diagnosable; three, the number of workers was manageable; and, four, there was a known prevention method to stop the progress of the disease.

A cohort of 1,385 workers exposed to a potent bladder carcinogen, beta-napthylamine, was selected. Of this original cohort, 1,094 were believed to be alive and potentially locatable at the time of the study. This determination was made by reviewing records from the Social Security Administration, the Internal Revenue Service, and the States.

After this vital status determination was made, last known addresses had to be found via post office followup, use of telephone directories, tracking services, and so forth.

Then the workers were mailed a message notifying them of their potential risk. Our estimate indicated that 849 workers actually received this notification.

Then, in collaboration with State and local health departments, a local medical college, and a community action group, we established a screening program for bladder cancer and an education program.

A total of 655 of the 849 workers participated. For your information, a total of 14 confirmed cases of bladder cancer were identified in this group; less than 5 would have been expected.

Of the 14 cases 3 were identified from death certificates. Physicians' reports confirmed another seven cases that had been detected and treated independently of this project. Four cases were found in the screening process and were confirmed from pathological reports.

Several other health and societal consequences of notification became more clear to us through this pilot project. The pilot project indicated the importance of counseling, accurate information about risk, medical screening, and treatment.

We believe that these needs will apply pressure to involve a larger cross-section of the community, including the companies involved, unions, current employees, physicians, lawyers, the insurance industry, social services of State and local governments, and members of the community at large.

It is important to note that one result of this pilot notification was that some $300 million worth of lawsuits were filed against the companies involved.

These factors should not dissuade us from pursuing appropriate notification, but they do suggest the seriousness of these activities and provide guidance in conducting them.

Three concerns are critical in this respect. First, special care must be taken to avoid what we call false notifications. Worker notification must be based on scientifically sound judgment and information. Second, accurate information should be available to workers, their families, and community physicians, and other entities. Finally, communities, the medical system, and State and local agencies need to be prepared to respond to needs that may include counseling, medical screening, and treatment.

Based on the results of these pilot projects, we have developed a draft decision logic for determining which of our studies should be considered for inclusion in an individual worker notification effort.

We have also developed a list of candidate studies, where overall dissemination of results already has taken place, to which the decision logic will be applied. Both the decision logic and the list are receiving review from our Board of Scientific Counselors.

We will, of course, continue to conduct our mandated epidemiologic studies of workers and will use the worker notification decision logic for these studies.

This concludes my prepared testimony. I would be happy to answer any questions at this time, as would my colleagues.

Mr. GAYDOS. Mr. Hayes.

Mr. **Hayes**. Thank you, Mr. Chairman.

I just want to say that my understanding of the good doctor's position is that H.R. 1309 would probably do more harm than good. Am I right?

Dr. **Millar**. I would say that I think H.R. 1309 is not necessary for us to do the notification that needs doing.

Mr. **Hayes**. The current program of notification as is provided by NIOSH you think is adequate, right?

Dr. **Millar**. Well, it's proceeding deliberately. Let's put it that way. I think we have approached this problem with a good deal of scientific imagination. We know a lot about this issue.

I can't say that I'm especially pleased with the rate at which workers in these studies are being individually notified, but I think we have very carefully defined, explored, and done the necessary research on how to do these things.

Mr. **Gaydos**. Do you yield to me?

Mr. **Hayes**. I yield.

Mr. **Gaydos**. Doctor, if you know how to do them, why don't you do them?

Dr. **Millar**. As the chairman well knows, it's a matter of tradeoffs. On a daily basis, we confront decisions between research, service, and various aspects of what we're mandated to do.

In fact, I find myself going to the Occupational Safety and Health Act just about daily to decide whether we invest in a research project here, or continue a service project there. I think, that is where we are with this issue. It's a difficult tradeoff, but we are prepared to make those choices.

Mr. **Gaydos**. Let me ask you a couple of questions, Doctor.

Who initiates those studies? How are they initiated? Self-initiation or through some request or——

Dr. **Millar**. Well, they are initiated in a variety of ways. Many of them grow out of things we may have picked up in our health hazard evaluations or new issues that need exploration. Then we may turn to our industrywide studies group, for instance, to determine what sort of an epidemiologic approach might be needed to further explore the issue.

I have with me Dr. Melius, who runs that division.

Jim, perhaps you'd like to say a word about how these studies get initiated, with the chairman's permission.

Mr. **Gaydos**. Could this committee ask you for a study and would you respond or would you plead budgetary limitations?

Dr. **Melius**. We certainly have responded to requests from Congress before for certain studies. We would certainly seriously consider something like that.

Now, these studies come from a variety of areas. Some are in response to a need for better information about the risks of a chemical that's been in use for many years, new information from another country or from a smaller study indicating that there may be some risks that were previously unrecognized, or to determine what levels of exposure may cause these particular risks.

We've developed a variety of approaches for answering these questions and for going to the field and doing these studies.

Obviously, we have to take into account our resources in deciding where we put our priorities at a given point in time.

Mr. GAYDOS. Well, apparently you have a lot of studies, like 400 or so. I think, Doc, if my recollection is accurate, 86 were most important.

You're getting requests for a lot of studies. Now, wouldn't that, to a normal individual, indicate that there is something amiss, and that with so many studies being asked for that maybe we ought to take a look at a broad approach to this problem?

Dr. MILLAR. I don't think anybody would argue that the field is not very complex and rich and there are a lot of problems, more than anybody in the Institute can possibly approach in a lifetime.

Occupational safety and health is a very challenging area, the most challenging one I've been in in the Public Health Service.

On the other hand, the 86 studies we have talked about where we believe there may very well be an obligation to do individual notification grow out of the entire experience of the Institute, out of a total of 3,800 studies. So, the number with which we are concerned that some individual notification may be warranted really represents a very small part of the big picture where we have, in fact, disseminated in ways that reach the individual worker.

Information on the vast majority of studies that we do——

Mr. GAYDOS. I think Mr. Hayes asked you this question. Do you in good conscience, right now, in the responsible position that you hold, do you feel that workers today are receiving adequate notification in looking at the broad spectrum of the problem?

Dr. MILLAR. I would say no. I think that workers are not being adequately informed of all the risks they face. As Mr. Tyson said before me, I think there is a broad awareness that many people share, which has led, among other things, to the Hazard Communication Standard.

Mr. GAYDOS. Well, let me ask you, Doctor, if I may interrupt you right there, do you think the Hazard Communication Standard is going to be the answer? Do you think that it would replace the concept of what we've incorporated into this proposed legislation?

Dr. MILLAR. Let me say right off that I am no expert in the Hazard Communication Standard. But it seems to me that it certainly will be a great improvement.

Now, as Mr. Tyson said, I would guess there will prove to be areas and gaps that we need to address over a period of time.

Mr. GAYDOS. Well, again, in good conscience, is the improvement sufficient as far as you are concerned?

I want to get you on record here.

Dr. MILLAR. Well, all right. I'll——

Mr. GAYDOS. Without talking to OMB. And I want to ask you about OMB too.

Dr. MILLAR. Well, I'll get right to the point.

Mr. GAYDOS. Yes.

Dr. MILLAR. No.

Mr. GAYDOS. We're going to waste some time here.

Dr. MILLAR. We will never get to the point, no matter what kind of efforts we undertake, when all workers know everything they should know about the risks they face in their employment. I doubt that we will reach that utopian state at any time in my lifetime.

Mr. **Gaydos**. Doctor, the proposed legislation doesn't portend to do that. We know that it would never do that. We understand that.

But the question I'm asking you, from a practical aspect, wouldn't it be a move affirmative, in the right direction, to take place of or to cure a void in the existing law as it's operating?

You know, you say you're not expert, but yet you go through all of these different figures here. You take the position of an expert. And I, with all due respect, consider you an expert You've been in the business a long time. It's your profession. But here you come before the committee, Doctor, and you cite this one case substantiating your position that notification for all effects would be directed to areas whereby there would be no need. Because you take this one bladder case over here, the project, you say 849 workers received notification, 655 participated and responded after 14 confirmed, yet you use those statistics to justify your position in opposition to the proposed legislation.

Let me ask you something. Let me ask you a question.

Would you change your position if, as Mr. Tyson before you had admitted, we're talking about permanent standards as distinguished from all the interim standards, whereby you talked about $400 million on the interim standards if you had to go in and do it, and 300,000 per standard, would that change any of your conclusions or any of the discussions you've had with OMB on this matter?

Dr. **Millar**. Mr. Chairman, I only abrogated my expert status with regard to the Hazard Communication Standard. I'm willing to assume full accountability for being an expert in matters related to worker notification based on our studies.

And about the $300,000, I would say, of course, that the number of standards one would have to look at and do surveillance studies on would determine the overall cost of what the assessment——

Mr. **Gaydos**. Well, I'm trying to correct the record because Mr. Tyson admitted to his first mistake before the committee when he said, I admit this proposed legislation only pertains to 24 adopted existing standards as distinguished from so many of the thousands of interim standards we know that are in place.

Now, you used the same criteria again I say.

The meeting that you had with the OMB yourself, the Justice Department, when you sat down, you probably all predicated your testimony on a misconception that there are that many standards involved. And there aren't that many standards.

Now, would that change your position? That's the question I'm asking you. I'd like to have a direct response and a fair response from you.

Dr. **Millar**. Of course, the——

Mr. **Gaydos**. Sure it would. It has to, doesn't it?

Dr. **Millar**. There is clearly a difference between 400 and 24. And we did, in fact, make the assumption which I assume Mr. Tyson made, that there were 400 OSHA standards, and that these would have to be reviewed by the Assessment Board within a period of 2 years, with a report to the Secretary.

Mr. **Gaydos**. An almost insurmountable task and very costly.

Dr. **Millar**. That was our view.

Now, of course, the figures on the surveillance study, the $300,000 it would take to do a surveillance study, and we would envision that at least one of those would have to be done for each standard reviewed by the Board,——

Mr. **Gaydos**. Times it by 24.

Dr. **Millar**. In defense—excuse me?

Mr. **Gaydos**. Times it by 24——

Dr. **Millar**. Yeah.

Mr. **Gaydos** [continuing]. Is all we have.

Dr. **Millar**. 300,000 by 24 is clearly a much lower figure than 300,000 times 400.

But the cost of the individual study, I think, is still significant.

Mr. **Gaydos**. I do——

Dr. **Millar**. And the problem here is that to do one of these things, to go out and discern the cohort that would have to be approached and notified, is, indeed, a serious and lengthy undertaking.

And maybe I could ask Dr. Melius to go through some of the steps that would be required in such a surveillance study, which I think would——

Mr. **Gaydos**. Well, that wouldn't serve any purpose here. Because I understand if it's going to be accurate you're going to have to be methodical and scientific about it. Right?

Dr. **Melius**. Right.

Mr. **Gaydos**. So, I would have to understand that.

I'm getting down to looking at some fundamental principles here. That's what we're talking about, the committee.

If this bill is wrong, if it asks the impossible, if it's not practical, I myself, being a prime sponsor, would be the first to pull off the bill. I have no pride of authorship. And I don't think any of us along there—Mr. Hayes, we've discussed this many times.

But if there's more than a scintilla of evidence indicating that there is a real need for this type of amendment to the existing OSHA Act, I think, in good conscience, you know, just human dignity, and just doing the right thing and the right circumstances would force us to consider it in good conscience.

I'm not saying we're going to pass it. And I'm not saying that the questions raised aren't properly based in good disputable evidence.

But I'm looking for experts, supposedly serving people, in this Government, impartially giving us the facts upon which to make that ultimate determination, whether we withdraw the bill, don't proceed with it, conclude that it's unworkable.

I think that we have a right to expect accurate information, No. 1, and, No. 2, information put together in good conscience. And I really resent—and I don't know if I'm justified or not; I'm not going to ask you—but I do want to put it on record, I really resent a concert between some of the witnesses coming before the committee, and all agreeing upon what position they're going to take. Because running through a lot of the testimony today there seems to be a vein of repetitiveness, as if somebody sat down and said, all right, we're going to take this position, and that's what we're going to substantiate, and we're all going to say it. And that doesn't seem right to me.

And we'll ferret it out, I guarantee you.

If we passed OSHA, this committee, 15 or some odd years ago, we're going to pass something here. I don't know what it's going to be. Maybe it'll be vetoed. They may accept her.

But I just want to put on record the fact that I don't think that's very proper.

I'm not accusing you of it. I'm just saying that there's indications of that cooperation all for a common purpose. And I don't think that's why we call different witnesses.

It's my personal opinion. And I've talked too long already.

Let me get to my good friend and colleague, who I so dearly respect, Mr. Jeffords.

You'll probably take a different position than me.

Mr. **Jeffords**. Yes, I was wondering whether you were trying to preclude that or not.

But, anyway, I appreciate the opportunity, Mr. Chairman. And I think it's very important that we're having these hearings.

I would like to ask you—I think what we're talking about here is the question of allocation of resources and to get the job done as best we can by prioritizing the use of those resources. And, as I understand your testimony and the previous testimony, you feel that the existing approach under OSHA and the existing statutes, with perhaps some minor modifications, with perhaps adequate funding, would be a better approach to go than by H.R. 1309. Is that basically what you're saying?

Dr. **Millar**. Let me draw a distinction between our problem in NIOSH and the problem of the whole occupational universe as regards the matter of information, right to know, obligation to inform.

We have, in NIOSH, what I consider to be very compelling mandates to do research, to respond to requests for assistance in the workplace, and then to disseminate that information in proper ways to people who actually take the actions to intervene there.

In other words, our mission is primarily to identify the problems, do the epidemiology and toxicology to describe the problem, and then make recommendations to regulatory agencies whose business it is to manage the risks that we have identified and described.

Now, in our particular situation here, we are concerned about a rather small part of this problem of dealing with risk. Where we have identified particular cohorts of people and defined their risks, do we or do we not have an obligation to individually inform those particular people. That is the NIOSH problem as I see it.

As a whole the problem of how to get information on risks to individual workers is much bigger than what I think the NIOSH problem is. And I really do feel that I am not in a position of expertise when it comes to commenting on the problem as a whole. I see that as a risk management problem. It is one that OSHA is choosing to address at the moment by the Hazard Communication Standard. Whether that is adequate or not I think is a matter of opinion and will be a matter of experience.

But I think it is appropriate to consider the NIOSH mission and what we consider to be our problem in this as opposed to the larger one.

With regard to our problem—I'm sorry to be so lengthy—I think I would agree with what you said. I think we can best deal with our problem if, under our present authorities, we continue to do what we are doing now. It wouldn't hurt if we had a few more resources with which to do it.

Mr. **Jeffords**. Thank you very much, Mr. Chairman.

I know we have a vote on, so I appreciate the time.

Mr. **Gaydos**. Let me ask you, Dr. Millar. A witness from Public Citizen and Health Research Group at last week's hearings said that NIOSH has lists of some 250,000 workers who are at high risk of occupational disease. Is that true? Well, where did that list come from?

Dr. **Millar**. We have lists probably in that order of magnitude, of workers on which we have some information. But it is not accurate to say that all those people are at high risk.

But let me ask Jim. Would you comment on that?

Dr. **Melius**. Yes. I agree. The magnitude is on that order, approximately 250,000.

We are currently assembling that list and getting more information to be able to come up with more accurate numbers as part of the review process for those studies. And working with our Board of Scientific Counselors, we'll have much better information on whether those workers are at risk of some disease arising out of their employment.

Mr. **Gaydos**. Well, would this be? That group also had stated that some 110,000 of that list of 250,000—where they got those statistics I don't know—would gain direct medical or health benefits from notification. And I don't know what the nature of the notification is.

I don't know how you put that 250,000 list together. I mean, why would you do that, and how would you—what kind——

Dr. **Melius**. I can answer that. As part of our approach to dealing with our past studies, we have collected all the studies that have been done in NIOSH, the 4,000——

Mr. **Gaydos**. I see.

Dr. **Melius** [continuing]. That we referred to in our testimony.

Mr. **Gaydos**. All right.

Well, is that 110,000 a guesstimation? Would that be somewhat reasonable and accurate?

Dr. **Melius**. We had made an allocation of those studies, particularly of the cohort mortality studies, into different groups based on what we knew about the substance they were exposed to, and made some initial assumptions, how they might be helped by a notification effort.

What we had not done at the time that they got that list, nor have we done it yet, is to make any determination what is the actual health risk in those cohorts.

We have done the studies. One can make some initial assumptions. We have not come up with a way of determining whether those cohorts would warrant some sort of individual notification effort or——

Mr. **Gaydos**. You haven't decided that yet?

Dr. **Melius**. Correct.

Mr. **Gaydos**. But do you think there's a moral or ethical principle where we should decide that within—how long have you had that list?

Dr. MELIUS. Well, the list——

Mr. GAYDOS. Probably a cumulation over a period of years isn't it?

Dr. MILLAR. Yes. Well, the studies go back a number of years.

Mr. GAYDOS. Do you think that we owe something to those people? Do we notify them or not? Do you think we'd scare them prematurely, as that has been testified here that you'd make such concern of—you know, with notification that you'd cause a disease if he didn't have it in the first place?

Dr. MILLAR. Mr. Chairman, we have no argument whatsoever with the right of workers to know their risks. And we do not argue with the fact that where we hold information that is unique that nobody else has we have an obligation to inform. We understand that and we accept that.

The whole issue here is the matter of priorities. How should it be done? Who should it be done to first? And how does it compete with other resource allocations for research and service?

Now, as we mentioned in the testimony——

Mr. GAYDOS. Well, before you go any further, so I'm clear, you admit to some kind of a duty, moral, ethical, or some kind of a duty, and I don't know if it's an in-house duty or a rule or regulation you have, but you just admitted on record that you do have a duty to notify them if they're on that list and if they are in that category.

But, yet, you qualify it up front by saying that you have to find out how to do it, whether you should do it, and all that stuff.

Well, how long do you wait? I mean, you know, I can have a list of very important things to do, and if I don't address that list, those things aren't done. One, 2, 3 years.

And the question I think involved is a very fundamental one. And that is, isn't there a duty to notify, and shouldn't a notification be timely?

Now, why sit on a list over there until you figure you're going to work out these other little details?

Dr. MILLAR. Well, we haven't, Mr. Chairman, with all due respect, been sitting on the lists.

Mr. GAYDOS. OK.

Dr. MILLAR. In fact, we——

Mr. GAYDOS. Correct me, then, on record, because——

Dr. MILLAR [continuing]. Spent 4½ years that I have been director working very actively in trying to figure out what is the appropriate way to do this.

Currently, we have put together a decision logic, which we mentioned in our testimony, which asks such questions as these about each cohort. Is there an excess risk in this cohort? Are the findings consistent with other studies? Are the survivors of the cohort at risk? Has the cohort been previously notified? Once the study is evaluated for risks, what sort of options should be taken to get the information to the individual workers?

Such questions must be addressed for each of those cohorts, for instance, was the study done well, are the results interpretable, are real risks there or could these risks be artificial, or, as we pointed out in our testimony, are the confidence limits around that observation sufficient that you can make a convincing case?

Now, we are convinced that for some of these cohorts we definitely are interested in doing individual worker notification, and we're proceeding to put the cohorts through the decision logic, once our external review group has agreed to the decision logic and make some decisions as to what needs to be done in——

Mr. GAYDOS. Well, how many decisions have you done to date?

Dr. MILLAR. We——

Mr. GAYDOS. I mean completed, actually made your study, had them there, and used all—applied all those different criteria, came to the conclusion that they're going to be notified, and then are notified. How many have you——

Dr. MILLAR. I would have to say that as far as I'm aware the only one that has been done deliberately and in that way would be the Augusta Study, the——

Mr. GAYDOS. All right. So——

Dr. MILLAR [continuing]. Pilot project.

Mr. GAYDOS. You see how inadequate it is. I mean, by your own admission, here we're doing all these things, getting them all lined up, and you don't dispute the fact that you have a quarter million workers listed, potentially, in a somewhat hazardous condition, who should maybe ultimately receive notification. And we're putzing around here. And that's the problem, again, supposedly to be cured by the proposed legislation, as I see it.

Dr. MILLAR. Well, here, again, I think it's well to bear in mind this one study in which we have done individual notification.

Many of these cohorts, in fact most of them, have been published in the open literature, so that the information has been disseminated but not directly to individuals. I think that's an important distinction.

Mr. GAYDOS. All right. Did you want to say anything else? I'm sorry.

Dr. MELIUS. Well, the involved companies, the unions representing those companies, and so forth, are notified of those results and, in the case of our hazard evaluations, the results are posted in the workplace.

Mr. GAYDOS. Well, I am really concerned about, you know, those people. And I appreciate, you know, the unions' activities. But there are so many people that aren't unionized today, you know. They don't have a union to protect them. After a fashion, if you're unionized, you have some professional expertise that is going to work on your behalf. But there are so many areas where they don't have an existing collective-bargaining agreement. And those are the ones that cause us an awful lot of problems, always have, in the committee; even if we deal with the United Mine Workers, or the Steel Workers, or the auto workers, you know, most of them have developed to a degree whereby we can even rely upon them doing many things themselves at their costs because of the overall concern and, you know, the whole nature of the organization.

But there's so many people that don't have that benefit. You go down to parts of Pennsylvania, West Virginia, and other places over there, there's many small operations that really have no unions. But that's another thing.

One of the differences between the NIOSH pilot notification program and H.R. 1309 is the job-discrimination provision, if you're familiar with it. Is the fact that employees notified by NIOSH have no job protection, a factor in your at least perceived failure or reluctance to do individual notifications?

Could you respond to that?

Dr. MILLAR. As far as I'm aware, that has not been an issue in our——

Mr. GAYDOS. It hasn't been.

Dr. MELIUS. We do think it's important. Certainly in the Augusta study that we did, we took provisions to educate the community, people dealing with those workers, and we felt that that was very important to prevent any sort of discrimination problems.

And there were some anecdotal reports of problems there. We felt that the community effort and the other efforts we took there helped to prevent that type of a problem.

That's why we feel individual notification is such an involved process. And it does take a lot of effort. It's more than just sending out letters to people.

Mr. GAYDOS. Was there anything else, any witnesses, Doctor; do you want to put anything more on record, maybe be helpful to the committee?

Dr. MILLAR. No, Mr. Chairman.

Mr. GAYDOS. All right.

Thank you very much for your appearances. I appreciate your coming back again, doctor. And if we need you, you've always been so kind to respond to us. And we may have to be calling you again.

Mr. HOLZMAN. Slowly.

Mr. GAYDOS. The counsel indicates that we sometimes have a slow response. We get a response though.

But I—we understand your problems, too. And we understand——

Dr. MILLAR. Well, we're trying to do a big job——

Mr. GAYDOS. Right.

Dr. MILLAR [continuing]. Sir, and we have a lot to do.

Mr. GAYDOS. OK. Well, I don't want to be disrespectful. And we understand you're intertwined in policy decisions, and things like that, and have budgetary limitations. We understand that. And we want you to know that we're sympathetic, but maybe somewhat impatient.

Thank you very much for your appearance.

Mr. Ken Rosenman, director of environmental and occupational health service for the State of New Jersey.

Welcome to the committee, Mr. Rosenman. And you probably heard some of the questions we had regarding the legal liability, and maybe you can throw some light on it.

STATEMENT OF DR. KEN ROSENMAN, DIRECTOR OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH SERVICE, STATE OF NEW JERSEY

Mr. ROSENMAN. OK.

I was not going to discuss that. But maybe if I could just——

Mr. GAYDOS. Well, maybe some opinions or—because we like——

Mr. ROSENMAN. I'll give some opinions at the end.

Mr. GAYDOS. All right. Good.

Mr. ROSENMAN. OK.

Mr. GAYDOS. And without objection we'll make your written submitted testimony part of the record. So ordered.

Do you want to sum up? You can. Or you can talk a little bit.

Mr. ROSENMAN. OK.

I just briefly want to say a few things.

First, I'd like to thank you for inviting me today to speak.

I'm Dr. Kenneth Rosenman. I'm the director of occupational and environmental health services for the New Jersey Health Department.

I would like to say that the State health department enthusiastically endorses this committee's effort to ensure that workers at high risk of occupational disease are notified of that risk and offered medical and counseling services.

There are no Federal regulations that address this issue, and that includes OSHA's new communication standard. This is particularly true for companies that have gone out of business or for individuals who have left employment.

My comments today are limited to offering advice on how to make the notification program more effective, in particular how to involve State health departments. We believe that would be an essential requirement in order to have effective notification program.

We are the health professionals who have day-to-day contact with both the workers and medical communities in our respective States.

You've already mentioned somewhat about New Jersey having a notification program. We are really just embarking on one and have not actually notified anyone at this point.

But I want to give you some examples of what we are planning and what we are initiating.

In the thirties through the early sixties, New Jersey was the center of the chromium-smelting industry in the country. Four of the seven plants in the country were located in New Jersey. The majority of the workers from these plants have perforated nasal septums. They have a passage between their two nostrils from chromium exposure, and are at high risk of lung cancer.

We are in the process of obtaining the names of the 1,500 workers from these plants. We estimate half of them are still alive.

Not only are we planning to notify these workers, but we are also planning to set up a medical screening program, which will, on a research basis, use some new screening techniques for lung cancer.

The other program that we are beginning to initiate is for former asbestos workers in the State; 20 percent of the workers in this country who were exposed to asbestos while manufacturing asbestos products were exposed in New Jersey. This comes to an estimate of 91,000 men and 12,000 women. That's from 16 major manufacturing facilities. In addition, New Jersey had eight shipyards. There was another 400,000 or so individuals who worked there, in addition to approximately 7,500 insulators.

We are presently exploring ways to locate these individuals and identify what services would be most beneficial to them.

Our feeling is, if we do nothing more than prioritize the smoking cessation programs in the State that are ongoing to these high-risk individuals that there will be a significant public health benefit.

I also wanted to add, in terms of what we consider the burden of these past exposures are that there is one area in the State, in particular, where 20 percent of the lung cancer can be attributed to having been exposed to asbestos.

The following changes that we would like to see to assist our effort and that of other State health departments are in four sections.

One change is in sections 3(b) and 6(c). This would give State health departments, within proper confidentiality guidelines, access to the same records that you're giving to NIOSH or that NIOSH currently has.

We think the problem is too large to expect one Federal agency to be able to handle the whole issue. We're willing to do part of this work with our own funds, but are hampered by the inability to obtain the necessary information.

State health departments have a long history of maintaining confidential information, for example, sexually transmitted diseases, and we would continue to do so with the information obtained if changes were made in the legislation.

In section 5(a), we would like you to encourage where possible NIOSH to enter into cooperative agreements with State health departments to conduct the notification.

Currently, the State of New Jersey, has two cooperative agreements with NIOSH. Over a dozen States also have cooperative agreements to perform various occupational disease activities. We think this is a successful approach and should be extended to the area of notification.

There were some comments before about the adequacies of some of the clinics for medical care. We think that you need to bring in in section 6(a) the clinics within the National Cancer Institute clinical research network.

There are an additional 15 clinics in this network; all of them have passed stringent peer review criteria of the National Cancer Institute, which are equivalent or maybe in some instances surpass some of the criteria of the other facilities mentioned in the proposed legislation. We suggest that you consider including these clinics.

Let me just close my formal presentation—I'd be happy to answer some of the questions about legal issues—by saying again that we strongly support the need for this legislation and wish you the best of luck.

[The prepared statement of Dr. Kenneth D. Rosenman follows:]

Prepared Statement of Dr. Kenneth D. Rosenman, New Jersey State Department of Health

Chairman Joseph Gaydos

Thank you for the opportunity to speak today. I am Doctor Kenneth Rosenman, the Director of Occupational and Environmental Health Services for the New Jersey Health Department. First, let me say that we enthusiastically endorse this committee's effort to ensure that workers in high risk of occupational disease be notified of that risk and offered appropriate medical and counseling service.

My comments today are limited to offering advice on how a notification program could be more effective.

First we believe it is essential that State Health Departments be brought into this bill. We are the health professionals who have the day-to-day contact with both the workers and medical communities in our respective States. In New Jersey we are already embarking on a notification program. In the 30's and 40's New Jersey use to be the center of the chromium smeltering industry in the country. The majority of workers from these plants have perforated nasal septums and are at high risk for lung cancer. We are in the process of obtaining the names of the 1500 workers from these plants. We estimate half of them are still alive. Not only are we planning to notify the workers, but we are also planning to set up a medical screening program which will, on a research basis, use some new screening techniques for lung cancer.

We are interested in doing more notification. We are currently compiling data on former asbestos workers in the State. We believe that 20% of the workers in this country who were exposed to asbestos while manufacturing asbestos products were exposed in New Jersey. We are exploring ways to locate these individuals and identify what services would be most beneficial to them.

The following changes in the law are needed to assist our effort and that of other State Health Departments:

1) Section 3(b) and 6c. needs to be modified so that State Health Departments within proper confidentiality guidelines also have access to these records. The problem is too large to expect one Federal agency to be able to handle the whole issue. Many states, including N.J., who are willing to do part of this work with their own funds, are hampered by their inability to obtain the necessary information. State Health Departments have a long history of maintaining confidential information (e.g. sexually transmitted diseases) and would continue to do so with the information obtained under these changes.

2) Section 5(a). should be modified to say that the Secretary shall where possible enter into cooperative agreements with State Health Departments to conduct notification. We currently have two cooperative agreements with NIOSH. Over a dozen states also have

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(1)

cooperative agreements to perform various occupational disease activities. This is a successful approach and should be extended to the area of notification.

3) Section 6(a). needs to be modified to include clinics within the National Cancer Institute Clinical Research Network. In order to have sufficient centers throughout the country in a timely manner, these clinics should be included in the initial selection process. The fifteen clinics in that network have passed stringent peer review criteria of the National Cancer Institute, which are equivalent to the criteria of the facilities already mentioned in this section.

Let me close by saying we strongly support the need for this legislation and offer the above amendments to make the proposed legislation more effective.

Mr. **Gaydos**. Well, thank you very much, Doctor. I want to thank you for your comments. And I want you to know that we'll sincerely consider your recommendations and try to work them into the bill.

I think, just offhand, they appear to be reasonable and probably improve the thrust of the bill. So, we'll definitely take a look at that. And I want to thank you for being so attentive and sensitive to the bill that you would make those recommendations.

I want to ask you, the New Jersey notification program, how long has it been in effect?

Dr. **Rosenman**. Well, as I said, we are just——

Mr. **Gaydos**. Roughly.

Dr. **Rosenman** [continuing]. Trying to get underway. We have not actually notified anyone. So, I cannot address, from experience.

Our understanding from the legal advice that we've been given on some of these issues are, one, for instance, with workers' compensation, that the mere fact of notification does not start that timeclock. At least in the State of New Jersey, it's when someone becomes ill. And, so, you are not jeopardizing anyone's workers' compensation.

At least two of the three companies involved in the chromium smelting have indicated to us that they will compensate all lung cancer victims who are recognized through this program.

Mr. **Gaydos**. Let me ask you this. Is your program the result of a statutory enactment by the legislature, an executive order?

Dr. **Rosenman**. No. It is a nonmandated activity. It is an activity that we think has public health benefit. And there is no statutory requirement to conduct it.

Mr. **Gaydos**. No statutory requirements.

What size staff do you have? Is it a large department or is it just in its preliminary stages? Do you have any staff?

Dr. **Rosenman**. Well, the Occupational Health Program in the State of New Jersey consists of 50 individuals. Some of them—in our own State right-to-know law, which, you know, we—we have been in court—and which we feel is more comprehensive than the Federal law.

The other mandated activity in that program is to do enforcement for public employees' health, health investigations, a State OSHA plan for public employees. And between that, that is approximately 40 individuals.

The other 10 individuals in that program do nonmandated activities. We consider notification a high priority. There are currently on the chromium project one and one-half individuals working on that. And on the asbestos project, one individual working half time.

Mr. **Gaydos**. All right. Then what's happened, if I analyze it correctly, is that the New Jersey Health Department, consisting of roughly 50 individuals, has now expanded into this area of notification involving two basic problems, one asbestos and one chromium——

Dr. **Rosenman**. That is——

Mr. **Gaydos** [continuing]. And has assigned you to overlook at least one of those or both of them.

Dr. **Rosenman**. Well, both of them.

Mr. **Gaydos**. Both.

Dr. ROSENMAN. That is, I am the director of that program and the Environmental Health Program.

Mr. GAYDOS. All right. Now I understand.

You're working within a larger group. But you are specializing in this area, is that it?

Dr. ROSENMAN. Well, I think it fits in. You know, most health departments have been asked to set up toxic substance registries. And, many times, when legislators think of that, they think of environmental exposures.

We feel a toxic substance registry includes people exposed to toxic substances. And we're not really concerned how they were exposed, whether in the environment or in the workplace.

We also do have sort of mandated activity—to have a toxic substance registry. And that really gets a little complicated. It's in the Environmental Health Program, but it's also part of the Occupational Health Program. And we consider, for instance, individuals exposed to chromium in the past——

Mr. GAYDOS. Are you——

Dr. ROSENMAN [continuing]. To be part of that——

Mr. GAYDOS. Are you an industrial hygienist?

Dr. ROSENMAN. No. I am——

Mr. GAYDOS. Doctor——

Dr. ROSENMAN. I am a physician. I am an internist and also a specialist in occupational medicine.

Mr. GAYDOS. I see.

How long have you been with the department up there?

Dr. ROSENMAN. Four years, sir.

Mr. GAYDOS. Let me ask you. We have had witnesses before the committee that have alluded to the detrimental costs in notification.

Have you—do you think that you're going to get into that problem as far as a budgetary problem? Is there going to be a lot of costs in notifying these workers of——

Dr. ROSENMAN. There are. There are certainly costs in this.

Mr. GAYDOS. Well, how are you doing it? I mean——

Dr. ROSENMAN. Right. We, in terms of the 1,500 workers, we estimate that we can do that activity, actually notify them, not do the—sort of the screening test for lung cancer, but actually notify them for less than $50,000.

Mr. GAYDOS. Do you have that budgeted in your department?

Dr. ROSENMAN. I——

Mr. GAYDOS. Or are you going to be asking for it?

Dr. ROSENMAN. Not a separate budget, no. We are using that within the money we have allocated, appropriated every year from the legislature.

Mr. GAYDOS. All right.

How about some practical things? Where are you getting your names from?

You say that you do keep a list, the State does keep a list now. So——

Dr. ROSENMAN. Well——

Mr. GAYDOS [continuing]. You have no difficulty in getting names do you?

Dr. Rosenman. For the chromium workers, the three companies that own these four facilities are cooperating with us. Because we do not have the same mandated access to Social Security records, to Internal Revenue records that Federal agencies do, it's through that cooperation that we're able to do this.

Mr. Gaydos. You mentioned about a dozen States have cooperative agreements with NIOSH to perform various occupational disease activities.

Dr. Rosenman. Correct.

Mr. Gaydos. Do you believe that some of those States also would be interested in taking part in a Federal notification program, such as New Jersey, if——

Dr. Rosenman. I believe so.

New York State has a State law where they do—companies are required to notify them of workers at high risk. In fact, in terms of legal issues, you might wish to contact New York State Health Department.

But I would say that, yes, there are a number of States that would be interested in participating.

Mr. Gaydos. You sat here and you heard some of the other witnesses, Doctor. Do you have any comments on what they had to say?

Dr. Rosenman. Only facetiously that you might wish to consider a State aid program rather than a Federal program. But, no, I have no comments.

Mr. Gaydos. When do you think you're going to reach the point whereby you think, in good conscience, you're accomplishing what you set out to to do, that is, giving sufficient notification to those that most require it?

Dr. Rosenman. Well, certainly, you know, the numbers I listed on the asbestos, we will not be able to do that without some initiative from our own legislature. And that is what we're preparing at this point, the background.

When? I think we have a long way to go. We are not happy with the—third district court's decision on our right-to-know law, which would have given us a much better handle on where chemicals are being used, in what companies. And that, is a setback in terms of taking a systematic approach at exposures in the State.

So, at this point, it's more an issue of what have we become aware of and, you know, what has previously been recognized as a problem. And we are handicapped by that court decision and as well as by our lack of access to certain records held by the Federal Government.

Mr. Gaydos. It appears that New Jersey's in the vanguard in this area, a very sensitive area. And you're telling us, if I read you correctly, that the State is dedicated to doing just what you've started to do, and they're going to follow it through to the conclusion.

If you could—if you could prognosticate along those lines.

Dr. Rosenman. Yes. I think we like to think that it's—it's always hard to go to a public meeting because there's always jokes about New Jersey. But we like to think we're in the vanguard in a number of issues.

We like to think the reason we have more toxic substance dumps is that we went out and looked for them, and not, necessarily, that the rest of the country doesn't have them.

In terms of our asbestos program, in identification of asbestos in buildings, we know we have a better program than, certainly, the Federal Government and other States.

And, so, yes, we have a strong commitment to deal with chemical exposures at the State level. And this is part of that effort.

Mr. GAYDOS. You touched upon the legal liability. Now, do you have fears that there is going to be some liability involved when you start notifying and then you fail to notify in some sensitive area, and just——

Dr. ROSENMAN. Our attorneys have always advised us, as long as we make a reasonable effort and do what is reasonably indicated, that we're OK.

We have not been sued for anything else that we've done, and for negligence of——

Mr. GAYDOS. Do you have concern that a lot of cases will be generated by this program of yours, and that a lot of your employers will be subjected to unnecessary and numerous legal actions? Does that concern you?

Dr. ROSENMAN. Well, as I mentioned before, two of the companies have voluntarily agreed to compensate these workers from the chromium industry.

You know, our first concern is preventing disease. And I think that, one could look at, not only the cost benefits of preventing disease—there are probably legal benefits. If you reduce disease, there are less people that are going to sue.

I think one needs to be concerned that one truly is notifying people at high risk. But I think that there are benefits to that, and I think that they outweigh any potential—and I really think it's a potential legal liability.

Mr. GAYDOS. Did you consider it a possibility that employers and industry will avoid your State, New Jersey, if you continue along these lines, and if——

Dr. ROSENMAN. Well, we're also very proud of our unemployment rate. The economy is booming. There's been some questions whether we should lend the Federal Government some of our surplus from our budget.

Mr. GAYDOS. To Pennsylvania.

Dr. ROSENMAN. Or Pennsylvania.

Mr. GAYDOS. Pennsylvania needs it more than Washington.

Dr. ROSENMAN. I mean, this issue comes up again every time. It came up under the State's right-to-know law. It comes up under any law that goes through the State legislature.

And I think there are lots of reasons why companies locate and relocate. And I do not think that this is one of them.

Mr. GAYDOS. Well, if you don't get any more business, you're going to have a lot of disease there. You mentioned before that disease was your prime concern. But if you have no business, you've——

Dr. ROSENMAN. Preventing.

Mr. GAYDOS [continuing]. Got a lot more disease.

Dr. ROSENMAN. Preventing.

Mr. Gaydos. Mental and physical disease. Does that bother you?

Dr. Rosenman. Mental and physical?

Mr. Gaydos. Sure. If you have no employment——

Dr. Rosenman. Uh-huh.

Mr. Gaydos [continuing]. You're going to have a lot of physical and mental disease.

Dr. Rosenman. Well, I really——

Mr. Gaydos. First——

Dr. Rosenman. I really——

Mr. Gaydos. How do you—how do you respond to that?

Dr. Rosenman. I really don't think that's an issue. I do not think that a notification, particularly—what we're looking at are people who have worked in industries that have already left the State.

The issue is not even hypothetical in that situation.

Mr. Gaydos. Let me ask you, Doctor. If a person does, having worked in an exposed industry, and he does leave the State, do you go after him and notify him, or do you——

Dr. Rosenman. The——

Mr. Gaydos. If you know.

Dr. Rosenman. The plan is——

Mr. Gaydos. How much money do you spend there?

Dr. Rosenman. The plan is to send them a letter. But we cannot, you know, as a State agency, go track people or offer them services outside of the State.

Mr. Gaydos. If he moves to Pennsylvania and gets a job, say, in one of our factories over there, and he contracted a disease in your State, New Jersey has a great reputation, and Pennsylvania pays.

Dr. Rosenman. Well, I'm not sure how that actually works. We have a suprisingly large number of individuals with coalworkers' pneumoconiosis in the State. And, so, I think that any payment is reciprocal because we have no coal mines. [Laughter.]

Mr. Gaydos. Touché.

I want to thank you. And I think New Jersey should be commended, really should be, for recognizing the problem and doing something about it.

Mr. Hayes is here. And I know you'll get a question from Mr. Hayes.

Before I turn it over to Mr. Hayes, let me tell you, let me say this to you. I think if more States had the courage to do what New Jersey is doing, I'd say, in the long run, you're going to be better off, because any expenditure of funds, or even on the followup examinations, and treatment, things like that, is going to be a lot cheaper than to be dealing with people that have contracted a disease and up until termination spend an awful lot on medical treatment and diagnostic requirements, et cetera.

I think New Jersey should be commended for being up front, second, for being modern and leading the pack. So, you should feel very proud, and I know you do, in working in a department like that.

Dr. Rosenman. Thank you.

Mr. Gaydos. Mr. Hayes.

Mr. Hayes. Thank you, Mr. Chairman.

I want to apologize for having been detained and missing. I missed the doctor's testimony, a good part of it. Of course, I looked forward to that breath of fresh air in this hearing this morning. And I certainly want to characterize it in that light because your testimony—and what you said in the ending certainly should—at least deserves some real words of commendation for what you've done in the State of New Jersey—what the State of New Jersey has done.

And we could all, I guess, benefit from it. And just to have you say you support what this committee is doing is what I consider to be a real step and different from what I've been hearing all morning.

So, I just want to thank you for having appeared here before us, as my chairman has indicated. Although you're just starting in the State of New Jersey I certainly feel strengthened with the kind of support and the kind of record that you're building.

Of course, you recognize the need for some real action. I hope that the proposed legislation, with whatever faults it has—if we can correct them, we'll correct them. If not, it's better than what we have now.

Thank you very much.

Dr. ROSENMAN. Thank you.

Mr. GAYDOS. Thank you very much, Doctor. And if we send you several questions or interrogatories, I'd like to have you respond if you can.

Dr. ROSENMAN. Certainly.

Mr. GAYDOS. Thank you very much.

I adjourn the subcommittee subject to the call of the Chair.

[Whereupon, at 11:52 a.m., the committee adjourned subject to the call of the Chair.]

THE HIGH RISK OCCUPATIONAL DISEASE NOTIFICATION AND PREVENTION ACT OF 1985

WEDNESDAY, MARCH 19, 1986

House of Representatives,
Subcommittee on Health and Safety, and
Subcommittee on Labor Standards,
Committee on Education and Labor,
Washington, DC.

The subcommittees met, pursuant to call, at 9:30 a.m., in room 2261, Rayburn House Office Building, Hon. Joseph M. Gaydos (chairman of the Subcommittee on Health and Safety) presiding.

Members present: Representatives Gaydos, Petri, and Murphy.

Staff present from the Subcommittee on Health and Safety: Sy Holzman, deputy staff director.

Staff present from the Subcommittee on Education and Labor: Dorothy L. Strunk, minority senior legislative associate.

Staff present from the Subcommittee on Labor Standards: Richard Fiesta, counsel.

Mr. Gaydos. The committee will come to order.

In early January, an explosion at an Oklahoma uranium processing plant killed one worker and exposed some 40 others to many toxic materials. Last week, doctors reported that at least two-thirds of these workers could be expected to suffer kidney damage as a result of the exposure and have been placed in a monitoring program.

While these workers are likely to suffer physical problems because of exposure directly related to an incident, we do know that many workers are exposed to all sorts of toxic and hazardous substances in the normal course of their jobs.

And, just as these uranium processing plant workers are to be observed and screened over a period of time, we believe that those workers who are at risk of disease because of exposures occurring during the conduct of their jobs deserve the same kinds of observation and screening.

H.R. 1309, the High Risk Occupational Disease Notification and Prevention Act, is aimed at providing just that service to those working men and women who face the threat of disease and death as a result of exposures during the course of their normal job routines.

In the course of our work, the Subcommittees on Health and Safety and Labor Standards have conducted four joint hearings to take testimony from business, labor, health professionals, and Government witnesses. Today is our fifth hearing. We are going to get the opinions of insurance carriers about the bill and its impact on that industry.

I would hope that our colleagues will have an opportunity to review and study in detail the testimony to be offered here today, and with that expressed hope, let me call the first panel, the Health Insurance Association of America represented by Mr. Abbott who is a legislative counsel, Liberty Mutual Insurance Co. from Boston, and Blue Cross and Blue Shield represented by Mr. Richards, senior Washington representative and legal consultant. I understand you will be sitting in, Mr. Carmody. Welcome, gentlemen, to the committee. I'll let you three decide among yourselves how you want to make your presentation. Without objection at this time, your written testimony as presented will be made part of the formal record in these proceedings.

STATEMENT OF JOHN L. ABBOTT, LEGISLATIVE COUNSEL, LIBERTY MUTUAL INSURANCE CO., BOSTON, MA, REPRESENTING THE HEALTH INSURANCE ASSOCIATION OF AMERICA

Mr. ABBOTT. Mr. Chairman, my name is John Abbott. I work for Liberty Mutual Insurance Co., and Patrick Carmody is with Mutual of Omaha. We represent the HIAA, and we will summarize our written statements.

As we indicated in the written statement, the health insurance industry supports the general concept of early detection and prevention of occupational diseases in the workplace. We think in the long run, that's going to lead to lower overall costs. However, we have several concerns with H.R. 1309 and in our ability to actually write the insurance that this program envisions.

Our first concern is a general opposition to any mandated benefits. As an association, we believe that the imposition of mandated benefits ultimately leads to higher costs on the part of the employer, and creates a disincentive for him or her to carry health insurance, and we think that's a serious consideration.

Specifically, with H.R. 1309, we have four concerns. The first mirrors, I think, some of the concern you have heard from the occupational health specialists that have testified before you earlier, and that is we don't think the scientific, medical community is ready to make the types of determinations that the risk assessment board is supposed to make.

In the case of the uranium workers that you mentioned earlier, that's the best type of evidence that we have about a workplace condition. An event happened. We know what they were exposed to and the extent of the exposure, and in that case, you can make a determination about who ought to be monitored and how they ought to be monitored. In fact, that type of monitoring program can and is set up depending on the wishes of the employer and the employees.

However, we think that the idea of a national panel which would come out with some standards and try to identify specific employees in their employment and the conditions of and the likelihood of their contracting occupational disease just won't work at this time, because we think that regardless of determining the nature of the chemical substance and the impact on a given employee, the ability to do that in a specific instance may exist, but to do it in general terms from a national panel, we just don't think is going to work at this time.

That will give the underwriters in the insurance business trouble in trying to figure out how much to charge for this service.

Mr. GAYDOS. If I may interrupt you, is there some reason why you have repeated two or three times, it will not work at this time? Is there some reservation on your part? When will it work, and will it ever work, and what time are you talking about?

Mr. ABBOTT. I'm in no position to answer that specifically. I am parroting what the occupational health people tell me, and that is that our——

Mr. GAYDOS. They're bad people to follow. I wouldn't follow them.

Mr. ABBOTT. The universe of knowledge is still very limited, and regardless of how much we may know about a chemical in general, unless you know the conditions of the workplace for each person, then you're not going to be able to make an accurate determination.

Mr. GAYDOS. We've got to do something though, don't we? We have asbestos floating around like it's going out of style, and we have bankruptcies in effect and some being threatened, and the overall problem being that the innocent worker ends up getting his life shortened and suffers a horrible death many times, and it's because we haven't approached the problem.

Somewhere along the line, even if the problem is difficult, we have to do something. That's why I questioned you on your observation, at this time. Do you have some secret information?

Mr. ABBOTT. No, we think eventually it will be done, and in the case of asbestos——

Mr. GAYDOS. Why not now?

Mr. ABBOTT. Well, you can do it for asbestos, because we have studies that determine the effect on the person. It's the broader range of materials that we don't know about that I think H.R. 1309 would also cover.

Mr. GAYDOS. If I could be so suggestive, given all the deficiencies in the proposed legislation, and there are some inherent deficiencies, some parts that won't work too effectively, take that as an example, isn't it, though, from a practical matter, time, based upon credible evidence, to start doing something. I don't care how clumsy we are. I don't care how ineffective it is. I don't care if it works, but we've got to start doing something, because we can't sit by under the present circumstances and hope that the thing will take care of itself.

I would think it's such a simplistic, logical conclusion and a good position to maintain. That's how I feel about it, and what we're trying to get from people like you is maybe some constructive suggestions. Yes, I know they have to be critical, but, at this time, it really bothers me, because it looks again like it's a coverup, and I say that not with malice, but it seems like a better word would be probably it appears that there is again a conclusion that nothing can be worked out, and a postponement again.

I think if it were your relation or your friend that were involved, I think you would feel differently about it.

Mr. **Abbott**. Well, I don't want to appear too negative, because we do support the concept, but I think you mentioned credible as a condition, and that's what I think we lack right now, the ability to have credible information about chemicals in the workplace. I think in the case of asbestos, the employers that are dealing with asbestos are taking precautions, because they know about the substance.

Mr. **Gaydos**. Everybody says that. Most of the witnesses say, "Oh, I'm for this, I think you're right, you're on the right track, your principal is proper, but," and that's what's bothering us.

Mr. **Abbott**. Well, it's a big but, because in terms of insurance underwriting, you have to know what you are trying to cover, and what it's going to cost, and the fact that we couldn't be sure about who out there is going to need the service is a practical problem for us. That leads me to the second concern we have, and that's over the discrimination provision.

The key to underwriting is to discriminate between different classes of risk, and if this were interpreted to prohibit us from using our risk classification system, and then to charge more for those employees that need the service, that's a problem for us as well, again a practical problem that perhaps could be worked out.

We're looking at it fairly narrowly from the insurance point of view.

Mr. **Gaydos**. I'm sure enterprising business led by young, bright men like you will find a way to work it out.

Mr. **Abbott**. I hope so. Our third point is the definition of occupational disease that's contained in the legislation, and we think that it's too broad and does not give sufficient weight to many lifestyle exposures the employee may have which would cause or contribute to the workplace disease.

The definition perhaps could be worked on, and ought to be looked at very carefully in terms of this legislation. Our final concern is the subrogation provision contained in the bill. As we understand it, it would allow a health insurer to subrogate against the workers' compensation insurer for the cost of monitoring the at-risk employee. We have a problem with this, that it would basically violate the State laws as they are set up today.

An employer isn't liable under State statutes for work related injuries until there's actually been an injury or a manifestation of the disease, so we think that this would upset the scheme in the 50 States, and probably wouldn't add anything to our ability to insure this risk.

That completes the oral testimony. We would be pleased to answer any more questions that you might have.

[The prepared statement of John L. Abbott follows:]

PREPARED STATEMENT OF JOHN L. ABBOTT ON BEHALF OF THE HEALTH INSURANCE ASSOCIATION OF AMERICA

I am John L. Abbott, Legislative Counsel of the Liberty Mutual Insurance Company of Boston and accompanying me here today is Patrick L. Carmody, Associate Corporate Counsel of the Mutual of Omaha Insurance Company. We represent the Health Insurance Association of America (HIAA), a trade association representing 335 insurance companies. Our members write over 85 percent of the private health insurance provided by insurance companies in this country.

Our testimony today will focus primarily on the impact of H.R. 1309, the High Risk Occupational Disease Notification and Prevention Act, on insurance practices and principles. The bill would create a new federal program which would be required to identify groups of employees exposed to occupational hazards where the risk of a particular disease is some increased percent of the national average. Employers, insurance companies and others would be precluded from discriminating against such employees, and health insurance companies would be required to pay for periodic medical monitoring and evaluation of the health of such employees.

Certainly, we have no objection to the general thrust of H.R. 1309, that workers should be informed of the risks of contacting occupational disease as a result of employment, particularly when early medical intervention can reduce the effects of occupational disease. Insurers strongly identify with the objective of determining if any hazard, occupational or otherwise, increases the exposure of a person to disease.

However, the HIAA has considerable concern over the practicality and workability of the insurance-related provisions of H.R. 1309. And we object on the basis of fundamental insurance principles to certain concepts underlying this legislation as they effect our business.

H.R. 1309 contains provisions that would mandate certain insurance coverages in both group and individual insurance contracts (Sec. 8(b) and (c). These provisions require insurers to cover medical monitoring and testing expenses for workers found at risk of occupational related diseases. While the HIAA supports the concept of preventive health care benefits, we believe that the decision to offer such benefits should be left to individual companies in response to competitive market forces. HIAA opposes the imposition of insurance benefits through government mandate.

HIAA fears that mandating one particular benefit, however meritorious, will set a precedent for others which may appear equally valid. A proliferation of mandatory coverages may well cause some employers, particularly small or marginally profitable ones, to drop what coverage they currently provide, leaving their employees, spouses and children with no coverage at all.

Also, by mandating benefits the proposed bill directly interferes with the collective bargaining process. Employers and labor/management trust funds have finite resources available with which to purchase employee benefits. Mandated benefits narrow the choices available to the employee bargaining unit and the employer by forcing them to purchase a particular benefit. Picking the right benefits for each group should be left to the group themselves and their employer. They are in the best position to determine what types of coverages are needed. It should be noted that insurers frequently offer preventive health care and related benefits through this process.

The proposed Act also seems to blur the distinctions between health insurance and workers' compensation and between occupational and non-occupational illnesses. Group health insurance plans universally exclude expenses in connection with occupational disease. The costs of non-occupational disease are, of course, traditionally financed by health insurance. If the mandated preventive medical regimen contained in this law is related to the threat of occupational disease, we question whether payment for this medical surveillance is the proper responsibility of health insurance. Since the very nature of this law implies a relation of high risk occupational disease to employment, it is also possible that the costs of monitoring health of such a worker would be determined to be occupational and thus excluded by contact from health insurance coverage.

We further note that monitoring and testing of "at risk" employees who may be exposed to potential health hazards is a very ambiguious requirement, and it would be difficult for insurers to determine the validity and necessity of such procedures and the frequency of their use. The cost impact of such monitoring could be significant.

In addition to the above, there are several aspects of H.R. 1309 which would make it difficult for insurers to comply with the procedures envisioned.

Scientific Impracticality - A key to making H.R. 1309 work lies in the ability of a Risk Assessment Board within the National Institute for Occupational Safety and Health to determine an employee who is at "increased risk" or "high risk" of developing an occupational disease. We are informed by occupational health specialists that a fundamental principle of toxicology is that all chemicals are capable of causing disease at some dose. Assessing the risk to an individual working with a chemical involves:

1. Knowing the amount of the chemical likely to cause disease and;
2. Knowing the circumstances under which the individual is involved with the substance in question.

In the opinion of industry loss prevention experts, medical science has not yet advanced to the point where epidemiological studies can provide an accurate quantitative determination of an employee's potential increase in risk. With a few exceptions, data on the effect of chemicals on living human beings consists of anecdotal reports (descriptions of suicide attempts or accidental exposures) and a limited number of dose-response studies, usually involving other species. Further, a working knowledge of the conditions of exposure is vital to determine the likelihood that workers handling hazardous materials will be exposed to harmful amounts of the substance.

In view of the above, it is difficult to imagine how a national or regional risk assessment board could make an accurate determination of how much "at risk" an employee is, let alone make a decision as to which individual employees were at risk at a given time. The difficulty in determining which employees are at risk, (and to what extent) impacts directly on the ability of the insurer to underwrite the risk. Underwriting is based on the ability to predict, with reasonable certainty, the number of cases requiring treatment, the amount of treatment involved and the ultimate cost of the program. If underwriters do not have confidence in the government's ability to determine the number of "at risk" employees, insurance companies will be reluctant to bid on insuring this type of risk.

Discrimination Prohibition - Section 7(a) states (in part) that "no ... insurance carrier ... shall in any manner discriminate against any employee on the basis that the employee has been notified by the Secretary that he is at risk of any occupational disease." As written, this section could be interpreted to preclude an insurer from charging higher premiums for those employees who, because they require monitoring, increase the cost of providing health insurance. We also are concerned that normal experience rating procedures that may reflect claim increases from monitoring would be judged to be discriminatory under this section. Further, we question whether substandard experience rating due to high risk occupations would be allowed. This Section thus might violate principles of risk classification, which is the basis for the pricing and availability of insurance. The heart of the insurance business is classifying people and things according to risk, and charging premium in light of the risk. Section 7(a) appears to violate this principle.

Definition of Occupational Disease - Section 10(11) defines the term "occupational disease" as "any disease associated with hazardous occupational exposures which appears in a given employee population at rates exceeding that of the general population." This definition is far broader than definitions of occupational disease utilized in state workers' compensation statutes today. As drafted, this definition assumes a causal connection between the presence of a hazadous substance in the work place and the illness rather than requiring actual proof that the work place exposure caused the illness. Further, it fails to take into account any non-occupational lifestyle exposures to substances which could be a contributing factor in the occupational disease. Thus, under this definition an employer could become responsible for monitoring employees whose occupation was not the sole or major cause of their medical condition. A definition as broad as this one blurs the distinction between work place and non-work place illnesses, violating long-standing underwriting and risk classification practices.

Subrogation - Section 8(d) allows a health insurer to subrogate against a workers' compensation insurer for "treatment provided by a health care financing system to an employee for a subsequent disease that was subject to a notification..."

As drafted, this provision appears to provide health insurers a means to recoup payments made for monitoring an "at risk "employee from the workers' compensation carrier once the employee actually contacts an illness. This runs counter to all state workers' compensation laws and to current group health insurance contracts.

State workers compensation laws hold an employee liable for work related injuries or diseases only after a determination that the injury or disease has manifested itself and that the workplace exposure was the major cause. On the health side, the standard group health insurance contract excludes payment for any benefits which are covered under workers' compensation statutes. Thus, for the subrogation provision to work state law would need to be changed to allow payment of benefits which were provided prior to the manifestation of illness. If these state laws are not changed, the subrogation provision would create a situation where a health insurer would sue a workers' compensation carrier to recover payments made on behalf of its client. In turn, the workers' compensation insurer would be defending claims on behalf of its client, the client in both instances being the same entity, the employer. The net result would be an overall increase in claim expenses to the employer.

In summary, we believe that H.R. 1309, while well intended, is ill conceived as it applies to the insurance business. As outlined in cur testimony, the provisions in the proposed Act that relate to insurance violate sound and historic insurance practices. It is fundamentally wrong for Government to mandate types of insurance coverage, impede underwriting of insurance risks, and create health insurance responsibility for occupational risks and hazards.

STATEMENT OF PAT CARMODY, MUTUAL OF OMAHA INSURANCE CO., REPRESENTING THE HEALTH INSURANCE ASSOCIATION OF AMERICA

Mr. **Carmody**. Mr. Chairman, members of the committee, my name is Pat Carmody. I'm with Mutual of Omaha Insurance Co., and I would just like to briefly add to what John has told you this morning. I think one of the other concerns of the industry is that over the past 10 years or so, we have all instituted cost containment or cost utilization programs which have been very effective in containing the spiraling health costs in this country.

Several of the provisions of this bill would go counter to those efforts on our part. Probably the main one is that it appears by the language of the bill that there would be a third party intervention either by the employer or by the board which would determine what type of diagnostic or what type of care is needed for these individuals which would take that ability away from us to properly question whether the treatment was necessary or whether it was needed.

It's our feeling that this could and would encourage an expansion of the providers that currently do this type of work. There would be more diagnostic centers developed, and the bill indicates there would be regional centers. At this time, of course, there aren't any such centers. There's places that could do it, but there are no, "regional centers" for this. We would predict that they would crop up like mushrooms, and again, that would increase the health care costs in this country, and that would be one of our concerns with the bill.

That would be the only thing I would add, and, of course, answer any questions you may have.

STATEMENT OF ALAN K. RICHARDS, SENIOR WASHINGTON REPRESENTATIVE AND LEGAL CONSULTANT, BLUE CROSS AND BLUE SHIELD

Mr. **Richards**. Thank you, Mr. Chairman. I'm Alan Richards representing the Blue Cross and Blue Shield Association. As you may know, our plans currently provide health benefits to over 78 million Americans. We appreciate your invitation to appear today and comment on H.R. 1309.

The approach taken by the bill is to make occupational disease related monitoring, preventive care and treatment of certain persons designated as at risk by the Federal Government a mandated benefit to be provided by health care financing systems.

I'd like to comment on some of the sections of the bill as they pertain to us as health care financing systems, specifically the provision that creates a mandated benefit for health insurers, provisions that prohibit discrimination against notified employees by insurers, and the provisions for subrogation by health benefits payers against workers' compensation programs.

With respect to the mandated benefits aspect, I would only echo what my colleague at the table has said. We are absolutely opposed to mandated benefits. Insurers and employers have a decade of experience at the State level with mandated benefits, and chaos reigns today. There are over 500 State mandated health benefits in effect, and over 500 more pending in State legislatures around the country.

To give you a better impression of what this is all about, if I may, I offer for the record a chart which was recently prepared by our association that lists the mandated benefits in each State and the year of their enactment.

We believe employee benefits are part of a contractual agreement between employers and employees. A mandated benefit represents the Government inserting itself into that relationship, and ruining the options that are otherwise available to the employer and employee in designing health benefit programs.

Tremendous pressure is already exerted by providers at the State level to mandate insurance payment for their services. Once you establish a precedent at the Federal level by mandating a benefit, you will be faced with an onslaught of providers that want the Federal Government to require all employers to provide coverage for their services as part of employee health benefits.

A second concern we have with the mandate in H.R. 1309 is the broad nature of it. It's so unspecific in content that we're afraid that it could lead to runaway program costs. A variety of mandated entitlements have shown a tendency to do this at the State level.

It is extremely important to keep in mind that employers only have so many dollars to spend on employee health benefits. In the current environment, employers required to provide the benefits that you're mandating here for certain employees identified by the Government, would be quite likely to reduce other health benefits to offset the cost.

So there is a cost tradeoff to be made. It's not just a cost that's going to be covered without affecting somebody else's interests. Like most benefit mandates, therefore, this one would take away some of the freedom that employers and employees now have to decide what they want in their benefits package. Again, I emphasize that mandated benefits are an inappropriate way for the Government to deal with these problems.

With respect to the discrimination element, "discrimination" is so broadly defined in the bill that we interpret it to mean that an insurer could not charge for the extra risk that selected persons in a group represent, because they, and only they, are entitled to the benefits that would be mandated under the bill.

If that's the case, it could have great repercussions in the marketplace. Let me explain a little about how insurance works. For most large employers, if they were to provide these benefits as an employee health benefit, whether they insured or self-funded that benefit, the whole cost of the benefit would simply be captured within the employer's group. That's because large employers either self-fund their benefits or they're experience rated, which means, in effect, that the costs that their employees incur during the year are directly reflected in their premium. There's no passing out to the general insured community of the risk that the insurer has taken on for the group.

But, with respect to individuals and small groups, at least the way they're community rated by Blue Cross and Blue Shield plans, the situation is different. We put all the individuals into one large group and spread the costs across that, enabling us to charge all individuals the same premium. Similarly, with small groups, in order to offset the fact that one or two people with health problems in a small group would have a tremendous impact on its health insurance premiums if that group were experience rated, we pool small groups into supergroups, and spread the cost across all small group members of the supergroup, and just charge them depending on how many people are in the group, not depending upon an individual small group's use of health benefits.

H.R. 1309 would complicate that situation, because within those groups we have individuals who, because they've been designated by the Government, would be receiving special health care benefits that other people would not be receiving nor be eligibile for, and yet the costs of those special benefits would be spread across the entire community.

Both the individual and small group health insurance markets are very expensive to cover already. It's a hard-to-insure part of the market, and we think that H.R. 1309 would cause additional problems. If you turn the situation around and say, well, OK, you can charge those people, whether individuals or small groups, a premium that captures the full costs of providing the preventive benefits to their employees so that the cost is not spread, then that cost would be added, dollar for dollar, to their employee health benefit costs, and they would very likely be faced with the problem of either cutting other health benefits to pay for these special health benefits, or perhaps more likely, asking their employees to pay more out of pocket for their health insurance, in order to offset the new costs.

The final point I would make quickly is with regard to workers' compensation. Currently workers' compensation is the primary source of payment to workers injured on the job, and it appears to us, given the goals of this legislation, that the workers' compensation would be the appropriate vehicle to provide these benefits.

You might hear differently from the workers' compensation witnesses who will appear later, but it appears to us that these are job-related, potential injuries that you're trying to prevent. Thus, it seems to be more workers' compensation oriented, especially since the benefit would be provided only to a designated group of people who have been exposed to a job hazard, as opposed to the general work force that health insurers cover. Workers' compensation carriers are used to dealing with just those few employees who have been injured on the job and who have been selected out of the larger employed group to be provided special benefits. Health insurers, in contrast, cover the entire group with the same benefits. We would have administrative problems, perhaps not insurmountable ones, but administrative problems nonetheless, segregating out those people from any group who are eligible for the particular special benefits that they would be receiving as opposed to their fellow employees who have not been exposed to a hazardous substance.

Let me close simply by saying that we recognize you're dealing with a very difficult set of economic and political problems in this legislation, and we would be more than willing to continue this dialog with you, with labor groups and occupational safety and health experts, as you discuss whether or not the particular approach you have taken in H.R. 1309 is the best way to go about meeting the problem. Thank you.

[The prepared statement of Alan K. Richards follows:]

PREPARED STATEMENT OF ALAN K. RICHARDS ON BEHALF OF THE BLUE CROSS AND BLUE SHIELD ASSOCIATION

The Blue Cross and Blue Shield Association is the national coordinating agency for the nation's Blue Cross and Blue Shield Plans. Our Plans currently provide prepaid health benefits to over 78 million Americans. We appreciate your inviting us to appear today and offer our comments, as providers of prepaid health benefits, on H.R. 1309, "The High Risk Occupational Disease Notification and Prevention Act."

We share the belief, expressed in Section 2 of the bill, that workers have a fundamental right to know they have been exposed to an occupational hazard and are at risk of contracting an occupational disease. And, we agree that medically appropriate monitoring and cost effective preventive care, early detection and treatment programs could do much to minimize the human suffering and high costs associated with diseases caused by hazardous occupational exposures. The challenge is to find a fair, appropriate, and politically acceptable means of paying for those worthwhile activities, given that they will generate very substantial costs.

The approach taken by H.R. 1309 is to make the occupational disease related monitoring, preventive care and treatment of certain persons designated as at-risk by the federal government a mandated benefit to be provided by health care financing systems, which are defined to include public and private health insurance programs, Medicare, Medicaid and the Social Security Disability programs.

Our comments are limited to those sections of H.R. 1309 which would affect us as health care prepayment organizations, specifically, those sections which create a mandated benefit for health insurers, prohibit discrimination against notified employees by insurers and provide for subrogation by health benefits payers against workers' compensation programs.

MANDATED BENEFITS

Section 8(c) of the bill states; "The cost of testing, evaluation and medical monitoring required by an employee as a result of a hazardous occupational exposure and subsequent notification by the Secretary that such employee is in a population at risk....shall be included as a covered item in any health care financing system available to such employee through his employment or as an individual purchaser of health insurance."

The Blue Cross and Blue Shield organization firmly believes that legislatively mandated health benefits are an inappropriate interference in the private financing of health benefits and are poor public policy.

Employee benefit plans are part of a contractual arrangement between the employer and employee. A contract is the product of discussion and negotiation between the parties at interest. With respect to health benefits, we believe that the subjects for agreement should include the level and type of benefits which best fit the needs of the employees and the ability of the employer to finance them. When government mandates a particular type of benefit as a part of this private agreement, government inserts itself into the negotiation process and thereby limits the options available to both employer and employee.

Mandated benefits nearly always favor particular types of beneficiaries or particular providers. Tremendous pressure is already exerted by providers at the state level to mandate insurance payment for their services. Once the precedent is established by approving just one mandated benefit, the federal government will be faced with having to decide if pediatric care is preferable to drug abuse treatment. Or, you may have to vote on legislation in which podiatrists are to be favored over psychiatric social workers or acupuncturists.

The proposed legislation would, in effect, require employee benefit plans to pay for the cost of testing, evaluation, medical monitoring and treatment "required by an employee" as a result of a hazardous occupational exposure without clearly allowing employers and health care financing systems to establish what would be a medically appropriate, cost effective strategy for any particular hazardous exposure. It appears that health care financing systems would be expected to pay for whatever services might be delivered if those services were related to an officially designated hazardous occupational exposure. Broad entitlements of this type will generate runaway program costs.

In your consideration of mandating benefits for employees exposed to an occupational hazard, it is extremely important to keep in mind that employers have only so many dollars to spend for employee health benefits. In the current environment, employers required to provide these benefits for certain employees are quite likely to reduce other areas of health benefit coverage for all employees in order to offset the cost of adding this new benefit. Most of the employees of such an employer would lose coverage for benefits they and their employers deem desirable in order to make new benefits available to a select group of fellow workers who have been identified by the government. Like most benefit mandates this one would take away some of the freedom of employees and employers to decide what they want in their benefits package.

The Blue Cross and Blue Shield Association and its member Plans have raised these same concerns at the state level and all too often our fears have been realized. In many states, employers carry enormous financial burdens because of benefits mandated by the state. During the past decade, the states have enacted over 500 mandated insurance benefits and in the process have profoundly affected the cost and utility of group health insurance as a means of providing employee health benefits.

The principal result of all this state legislative activity has been higher health insurance premiums and a dramatic increase in the number of employers who now self-fund, rather than purchase underwritten insurance for their employee health benefits. By self-funding, employers are able to shelter themselves, under ERISA's preemption clause, from state benefit requirements. Today, a dozen years since ERISA was enacted, workers in approximately half the country's companies have uninsured employee health benefits.

In the case of H.R. 1309, we understand the term "health care financing system" to include the self-funding by employers of their employees' health benefits. Because ERISA does not preempt federal regulation of employee benefit plans, H.R. 1309 would thus require both insured and self-funded employee health benefits to provide the mandated benefits for those employees the government designates as eligible. Although a federal mandate applicable to both insured and self-funded employee benefits would not work to the competitive disadvantage of insurers, we still believe that mandated benefits are an inappropriate way for government to deal with health problems.

DISCRIMINATION

Section 7(a) of the bill provides that no employer, insurance carrier, or any other person shall discharge or in any manner discriminate against any employee on the basis that the employee has been notified by the Secretary of Health and Human Services that he is at risk of any occupational disease.

Section 7(c) goes on to provide that no health care financing system shall in any way discriminate against an employee, who has been notified by the Secretary that he is at risk, with respect to the payment of costs associated with a medical monitoring program or any subsequent treatment, including treatment required by a medical monitoring examination or the onset of disease.

We are concerned that this language is susceptible to very broad interpretation and is confusing because, while Section 7(a) applies to employers and insurance carriers, Section 7(c) applies to health care financing systems which include public and private health insurance programs. It is not clear to us just what practices by health care financing systems, employers and insurers might constitute discrimination against an employee who has been notified of exposure to an occupational hazard.

For example, the language could be construed to prohibit health care financing systems from charging groups having notified employees a premium which reflects the extra risk those notified employees represent.

In addition, H.R. 1309 requires that the mandated coverage be provided in individual (nongroup) health insurance policies. Application of the mandate to individual policies would create an administrative nightmare for those companies still offering individual health insurance coverage, and this includes all Blue Cross and Blue Shield Plans. Our Plans, because they community-rate individual coverage would have to sell the mandated benefits to all individual subscribers — and charge an appropriate premium for the coverage — but only certain subscribers, designated by the federal government, would actually be eligible to receive the special benefits. Keeping track of who, among a Plan's individual subscribers, was eligible would be extremely cumbersome. Further, because all subscribers would share the cost, the mandated benefits could cause our premiums to become unaffordable for some.

SPREADING THE COST

In studying H.R. 1309, we wondered whether its authors assumed that the use of health care financing systems to provide the mandated benefits would spread the cost more widely than would be the case if employers were simply required to provide the benefits to any of their employees who are designated as exposed to an occupational hazard. Unless the "discrimination" prohibited by the bill were inappropriately defined, as discussed above, we do not believe that would be the case. Except for small groups and those notified employees who would be buying individual policies, the cost of the mandated benefits would tend to fall directly upon those large employers with notified workers. This would result because most large employers either self-fund their health benefits or have experience-rated insurance coverage in which the premium they pay directly reflects their group's use of health benefits.

Small employers, however, present a special problem. In dealing with small insured groups Blue Cross and Blue Shield Plans consider them as part of a pool and calculate a small group premium based upon spreading the risk more broadly across the composite, "super group". This is done in an effort to set affordable premium rates in a part of the market where, due to small group size, changes in the health status of few group members can have a huge impact on the financial risk a small group presents.

In small group pooling or community rated situations, which generally involve employers of 100 or fewer persons, the higher risk of health costs presented by "notified" employees would thus be spread across a larger population. But, if H.R. 1309's mandated benefits were to create significant costs in this already difficult to insure segment of the market, competitive forces could pressure Blue Cross and Blue Shield Plans to discontinue pooling and instead rate each small group according to the risk which it alone presents. This would result from healthier small groups refusing to "subsidize" the cost of the H.R. 1309's special benefits for persons in other small groups. If this were to happen, then the smaller the insured group the greater its premium increase would be due to the inclusion of "notified" employees. In some cases, small employers might find health insurance altogether unaffordable. In others they might simply require all employees to pay a higher share of the premium out of pocket in order to offset the added cost of mandated benefits available only to some designated fellow employees who may have been endangered by an occupational hazard.

It appears to us that H.R. 1309 would require a notified employee's current employer to provide the mandated benefits. In a situation where the hazardous exposure took place at the plant of a former employer rather than the employee's current one, this does not seem a fair way to deal with the current employer. Might this not also lead to subtle forms of hiring discrimination against job seekers whose work records reveal their former employment in high risk industries?

WORKER'S COMPENSATION

Currently, workers' compensation is the primary source of payment for workers injured on the job. H.R. 1309 would make health care financing systems the primary source of payment for costs associated with monitoring, prevention, and treatment of disease caused by a hazardous occupational exposure and would provide for subrogation against workers compensation for costs of treatment but not costs of monitoring and prevention. Given the occupational nature of the problem with which this legislation deals, we believe that the worker's compensation system rather than the health care financing system is the more appropriate mechanism through which to finance any benefits and services related to hazardous exposure on the job. In fact, most current health insurance contracts probably exclude benefits for occupational disease and injury, making worker's compensation the primary source of coverage.

Workers compensation coverages are rated and designed to deal specifically with those workers suffering job related illness or injury, whereas health insurers provide benefits to the entire workforce and will have administrative problems segregating certain employees within an insured group and within pooled groups for purposes of providing special benefits. Using the existing workers compensation system for the entire program would save both time and expense which otherwise would be involved in having the health care financing system seek reimbursement from the worker's compensation carrier for treatment costs only.

TAX IMPLICATIONS

The benefit mandated by H.R. 1309 could also create tax problems for some employees of companies in which hazardous exposure has occured. It appears that the Congress may soon enact a set of employee health insurance nondiscrimination requirements which impose income tax penalties on some employees who receive benefits for which other employees are not eligible. The providing of H.R. 1309's special benefits to certain employees could trigger a tax penalty under the proposed tax rules dealing with nondiscriminatory employee benefits.

SUMMARY

In closing, I would like to restate our concern with finding a way to deal fairly and effectively with the needs of employees who suffer hazardous occupational exposures, but also to emphasize our concern with H.R. 1309's approach to dealing with the problem by creating a federally mandated health benefit for a select class of employees.

We recognize you are dealing with very difficult economic and political problems and we would be more than willing to continue this dialogue with you, employers, labor groups, and occupational safety and health experts as you consider whether H.R. 1309, as currently drafted, is the best way to solve those problems.

MANDATED COVERAGE LAWS

ENACTED THROUGH 1985

Prepared by: BCBSA
Office of Government Relations
State Services
March 1, 1986

MANDATED COVERAGES

	AL	**AK**	**AZ**	**AR**	**CA**	**CO**	**CT**	**DE**	**FL**	**GA**
NURSES										
Nurse Midwives		83	85				84		83	
Nurse Practitioners			85				84			
Nurse Anesthetists			85				84			
THERAPISTS										
Physical							75			
Occupational					78		82			
Speech/hearing				**85**	78					
COUNSELORS										
Psychologists	82		83	75	80	79	75			80
Psychiatric Nurses					82		84			
Social Worker					76		79			
DENTISTS	75	83	77		76		75			
ORAL SURGEONS										
OPTOMETRISTS	67	83			80		75	X	74	
PODIATRISTS	76			75	76			X	74	
CHIROPRACTORS	75	83	83		76		71	X	**76**	80
OSTEOPATHS		83								
OTHER				75	76		75/84			
ALCOHOLISM	79		79		**78**	**76**	74/77		79	
DRUG ABUSE			79				76		79	
MENTAL HEALTH			79	**83**	**73**	76	75/82		76/83	81/84
BREAST RECONSTRUCTION			81	78	78					
MATERNITY				76	**76**	**75**	76			78
PRESCRIPTION DRUGS							75			
ORTHOTIC AND/OR PROSTHETIC DEVICES					**85**					
CLEFT PALATE										
DIABETIC EDUCATION					**81**					
DIABETIC OUTPATIENT										
SECOND OPINION										
HOME HEALTH			82		**78**	**84**	75/76			
HOSPICE						**84**	76			
AMBULATORY SURGERY			71						77	
ANTI-ABORTION						**85**	82			
PUBLIC INSTITUTIONS										
AMBULANCE/TRANSPORT FOR NEWBORNS										
OTHER HEALTH CENTERS										
DEPENDENT STUDENTS							82			79
ADOPTED CHILDREN			85						85	
NEWBORNS	75	75	74	75/83	71	75	74	74	80/84	74
MENTALLY/PHYSICALLY HANDICAPPED			77	69	71		71		70	72
PREVENTIVE CARE FOR CHILDREN/INFANTS					**74**					
NON-CUSTODIAL CHILDREN							84			
CONVERSION PRIVILEGE			85	79/85	83		75			
SURVIVORS			85		76		75			81
DIVORCED SPOUSE			85	85	76		76			80
DISABLED EMPLOYEE					77				75	
CATASTROPHIC COVERAGE										
POOL										
CONTINUATION				85	**84**					
CONTRACT REPLACEMENT					77					

X = Year unknown

* = Commercials only

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03/01/86

MANDATED COVERAGES

	HI	ID	IL	IN	IA	KS	KY	LA	ME	MD
NURSES										78
Nurse Midwives								84		78
Nurse Practitioners										79
Nurse Anesthetists										
THERAPISTS										
Physical										
Occupational										
Speech/hearing										
COUNSELORS										
Psychologists	84			85		74		75	75	73
Psychiatric Nurses									83	83
Social Worker						**82**			83	77
DENTISTS	74			74		73		74	75	
ORAL SURGEONS										
OPTOMETRISTS			80	74	**83**	73			82	73
PODIATRISTS			81	74		73				73
CHIROPRACTORS				74		73	**80**	75	86	73
OSTEOPATHS										73
OTHER			82							
ALCOHOLISM				76			**78**	**80**	**74**	82 80
DRUG ABUSE						**78**		**80**	83	78
MENTAL HEALTH			**74/77**			**78**		**75**	79/83	73/75
BREAST RECONSTRUCTION			80							
MATERNITY	74								75	75
PRESCRIPTION DRUGS									83	
ORTHOTIC AND/OR PROSTHETIC DEVICES										78
CLEFT PALATE		85		85						82
DIABETIC EDUCATION					**84**					
DIABETIC OUTPATIENT										
SECOND OPINION										85
HOME HEALTH							**82**		77	79
HOSPICE										82
AMBULATORY SURGERY	74						78			
ANTI-ABORTION							78			
PUBLIC INSTITUTIONS										67
AMBULANCE/TRANSPORT FOR NEWBORNS								80		
OTHER HEALTH CENTERS				85					79	76
DEPENDENT STUDENTS								78		79
ADOPTED CHILDREN			81							79
NEWBORNS	74	74	75	76	74	74	**76**	73	76	
MENTALLY/PHYSICALLY HANDICAPPED	68	72	67	69				72		X
PREVENTIVE CARE FOR CHILDREN/INFANTS										
NON-CUSTODIAL CHILDREN										
CONVERSION PRIVILEGE			83			78/80	74		82	79
SURVIVORS			85			84				77
DIVORCED SPOUSE			76			78/84	80			77
DISABLED EMPLOYEE	74	75							83	
CATASTROPHIC COVERAGE										78
POOL			82							
CONTINUATION			84			84	80	83		79
CONTRACT REPLACEMENT								77		

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MANDATED COVERAGES

	MA	MI	MN	MS	MD	MT	NE	NV	NH	NJ
NURSES								85		84
Nurse Midwives			83	80			84			82
Nurse Practitioners				80					85	
Nurse Anesthetists			83	80						
THERAPISTS										
Physical										75
Occupational										
Speech/hearing					**84**					
COUNSELORS										
Psychologists	75	68*	75	74	83	81	74	80	75	73
Psychiatric Nurses										
Social Worker	82					85			**83**	
DENTISTS	75		73	74	78	83	75	75		79
ORAL SURGEONS		85							75	
OPTOMETRISTS			73	66	78		69	75		67
PODIATRISTS			73		78		69	75		
CHIROPRACTORS		79	73	80	78		67	82		80
OSTEOPATHS							67	75		
OTHER					78			75		
ALCOHOLISM	73	74/82	73/82	74	77/85	79	80	83		77
DRUG ABUSE		74/82	73/82		80	81		83		
MENTAL HEALTH	73/82		75		80	81			75/83	
BREAST RECONSTRUCTION		85	80					83		83
MATERNITY			73		73			77		
PRESCRIPTION DRUGS										
ORTHOTIC AND/OR PROSTHETIC DEVICES		85								
CLEFT PALATE										
DIABETIC EDUCATION										
DIABETIC OUTPATIENT										
SECOND OPINION										80
HOME HEALTH						**81**		75		
HOSPICE		**84**						83		
AMBULATORY SURGERY		84/85	76		75/81					
ANTI-ABORTION					83					
PUBLIC INSTITUTIONS			73			73	84			
AMBULANCE/TRANSPORT FOR NEWBORNS				79						
OTHER HEALTH CENTERS										
DEPENDENT STUDENTS							76			
ADOPTED CHILDREN	75		83							
NEWBORNS	74		73	74	74	73	75	76	75	75
MENTALLY/PHYSICALLY HANDICAPPED	56	66	69	72		71		76	69	66
PREVENTIVE CARE FOR CHILDREN/INFANTS										
NON-CUSTODIAL CHILDREN										
CONVERSION PRIVILEGE	76		77		81	81	78	80		
SURVIVORS			73		69		80	80	81	76
DIVORCED SPOUSE			77					80	81	80
DISABLED EMPLOYEE			73							82
CATASTROPHIC COVERAGE			76							
POOL						85	84			
CONTINUATION					85	81	79			
CONTRACT REPLACEMENT										

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MANDATED COVERAGES

	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC
NURSES		**84**								
Nurse Midwives	85	82			84	71		82		
Nurse Practitioners				**84**			80			
Nurse Anesthetists										
THERAPISTS										
Physical		73								
Occupational										
Speech/hearing										
COUNSELORS										
Psychologists	77	71	77		74	71	76	78		
Psychiatric Nurses										
Social Worker		85								
DENTISTS	77	75			73	71	71			
ORAL SURGEONS										
OPTOMETRISTS	77	X			80	71	76	78		85
PODIATRISTS	77	X			80	71				72
CHIROPRACTORS	84	X	73	79	80	71		**81**		**80**
OSTEOPATHS	77				80					
OTHER	85									
ALCOHOLISM	**83**	82/83	**84**	75	78		75/81		80	
DRUG ABUSE			**84**	75						
MENTAL HEALTH		77		75	83		73			
BREAST RECONSTRUCTION		75								
MATERNITY		76			79		73			
PRESCRIPTION DRUGS										
ORTHOTIC AND/OR PROSTHETIC DEVICES										
CLEFT PALATE			82							
DIABETIC EDUCATION										
DIABETIC OUTPATIENT										
SECOND OPINION		76							83*	
HOME HEALTH	77	72/75							84*	
HOSPICE		**85**								
AMBULATORY SURGERY		**X**				76				
ANTI-ABORTION				79				82		
PUBLIC INSTITUTIONS			75		76					
AMBULANCE/TRANSPORT FOR NEWBORNS										
OTHER HEALTH CENTERS		**X**								
DEPENDENT STUDENTS										
ADOPTED CHILDREN										
NEWBORNS	75	77	73	79	74	**84**	75	76		74
MENTALLY/PHYSICALLY HANDICAPPED	69	65	69/73	**82**	71			68		70
PREVENTIVE CARE FOR CHILDREN/INFANTS		82								
NON-CUSTODIAL CHILDREN										
CONVERSION PRIVILEGE	83	71/81	82	83	75/84		77		78	78
SURVIVORS	83	81								
DIVORCED SPOUSE	83	81	83						83	78
DISABLED EMPLOYEE										
CATASTROPHIC COVERAGE									74	
POOL				84	84					
CONTINUATION										
CONTRACT REPLACEMENT										

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03/01/86

MANDATED COVERAGES

	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY
NURSES							81			
Nurse Midwives	80			79			81	83		
Nurse Practitioners	80						81			
Nurse Anesthetists										
THERAPISTS										
Physical										
Occupational										
Speech/hearing			83							
COUNSELORS										
Psychologists		74	77	75		77				85
Psychiatric Nurses								77		
Social Worker		**85**		75		**79**				
DENTISTS		74	83						75	
ORAL SURGEONS										
OPTOMETRISTS		65	79	75		77			75	
PODIATRISTS		65	77	75		79	83		75	
CHIROPRACTORS		81	79	75		79*	**83**		**76**	
OSTEOPATHS			**58**			77				71
OTHER	80	82				77				
ALCOHOLISM	79	**79**	81	81	82/85	77/80	74	82	74/85	
DRUG ABUSE			81			77/80			74/85	
MENTAL HEALTH		**79/80**	81		76	76/77	**83**	77*	74/85	
BREAST RECONSTRUCTION							83/85			
MATERNITY		84	77			[illegible]			82	
PRESCRIPTION DRUGS										
ORTHOTIC AND/OR PROSTHETIC DEVICES										
CLEFT PALATE										
DIABETIC EDUCATION									84	
DIABETIC OUTPATIENT				84					82	
SECOND OPINION										
HOME HEALTH					76		**83**		78	
HOSPICE							**83**			
AMBULATORY SURGERY				76						
ANTI-ABORTION										
PUBLIC INSTITUTIONS									80	75
AMBULANCE/TRANSPORT FOR NEWBORNS										
OTHER HEALTH CENTERS			83						75	
DEPENDENT STUDENTS										
ADOPTED CHILDREN	83			85						
NEWBORNS	76	74	73	77	76	76	74/84	75	76	75
MENTALLY/PHYSICALLY HANDICAPPED		69	81	75		74	69		75	71
PREVENTIVE CARE FOR CHILDREN/INFANTS										
NON-CUSTODIAL CHILDREN										
CONVERSION PRIVILEGE	79	80	77	79		82	84		80	83
SURVIVORS			79		84		80		80	
DIVORCED SPOUSE	80		79		84		80	83	80	
DISABLED EMPLOYEE							73	82	73	
CATASTROPHIC COVERAGE										
POOL						85		79		
CONTINUATION									80	
CONTRACT REPLACEMENT										

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03/01/86

MANDATED COVERAGES

Miscellaneous

AR - Outpatient Diagnostic; Licensed Health Professionals (75)

CA - Sterilization (70); Prenatal Care (76,79); Child/Family Counselors (80,81); Acupuncture (84); Psychiatric Health Facility (84)

CT - Notice of Termination (82); Nutropathic Medicine (75); most passed under comprehensive health care act of 1975; HMO Rehabilitation Facilities (82); Emergency Ambulance Services (83); Home Health Aides (84)

CO - Anti abortion mandate for state group only (85)

HI - Prepaid Health Care Plans (74)

ID - Complications of Pregnancy (76)

IL - Raped or Sexual Assault (75,82); Psychologists Mandated Through Regulation (76); Liver Transplants (84); All persons licensed under medical practice act are entitled to reimbursement if legally able to provide contract benefit (82)

KY - Newborn Nursery Care (80)

LA - Non-group to age 65 (74)

MD - Partial Psychiatric Hospitalization (76); Blood Products (75); All Providers (83); Orthopedic Braces (78); Invitro Fertilization (85); OP benefits resulting from UR programs (85)

MI - Non-group Medicare Complimentary Coverage (85); Mental Hospitals (83)

MS - Pre-existing Conditions (82)

MO - Pharmacists (78)

MT - Professional Counselors (85); Denturists (85)

NH - Pastoral Counselors (83)

NV - Chinese Medicine (75)

NJ - Diagnostic X-rays by Chiropractors (76)

NY - Pre-admission Testing (76); Ambulance Cancer Treatment (82); Nursing Home Option (X)

ND - Continued Coverage after HMO Selections (83)

NM - Practitioner Mandates of 1977 do not apply to Plan; Lay Midwives (85)

OH - OP Dialysis (72)

OR - Denturists (80)

SD - Reimburse all "Healing Arts" Practitioners (80); COB Prohibitied (81)

TN - School Psychologists (82)

TX - OP Psychiatric Centers (83)

VA - Opticians (77); Termination Notice (82); Mandated Benefit Option (82)

WI - Tuberculosis; Skilled Nursing Homes (75); COB (80); Kidney Disease (74)
Insulin Infusion Pumps (81)

WY - Licensed Practitioners (71)

Mr. GAYDOS. Before we get into any questions let me suggest to you that you're invited to make any and all information available, any inquiry, any additional analytical conclusions that you arrive at, statistics, what have you. We'll be very grateful for your continued interest, monitoring and participation in this matter, because we need help. Mr. Petri.

Mr. PETRI. Thank you very much, Mr. Chairman. I just have one question for the panel members. As I understood your testimony basically, you recognize there is a concern here that is important, but have reservations about this legislation and the scope of it and the practicality of it as far as some of the aspects concerning costs.

Given that, do any of you have any suggestions or ideas or feelings as to what the Federal role should be in this area of worker notification, or something that the Federal Government affirmatively could or should be doing?

Mr. ABBOTT. We think that the Federal Government already is doing a lot with OSHA and NIOSH, and that is a relatively new program, it's a new concept, and it's evolving, so we think that there is an awful lot being done.

I think our concern hinges on the fact that unless we know with some certainty the effect of the chemicals on the individuals, we are going to have difficulty insuring it, and it's a chicken-and-an-egg-type of thing.

When you have an employer, our experience is, we have an employer who knows what the materials in the workplace are doing or could do to his employees, to take the precautions necessary, and we are involved in those cases with making loss prevention recommendations and monitoring the health of key employees.

I think that if the scope of this legislation were somehow to be narrowed to the point where we felt comfortable with the information coming out of the risk assessment, that would be a big step in the right direction. I don't think the insurance community would object under those circumstances, at least as an insurance mechanism. I think you still have a cost factor to consider, and that's not a small one these days, but, again, we think the Government is doing a lot, and that individual employers are acting in the correct manner when they realize there is a problem.

Mr. RICHARDS. I don't think we can really offer a comment on that particular question. We're not expert enough on what employers in the industry are doing right now to be able to comment on whether this needs to be done. We leave that to people who know more about the issue.

Mr. PETRI. Thank you. I don't have anything else.

Mr. GAYDOS. Thank you. Mr. Murphy.

Mr. MURPHY. Thank you, Mr. Chairman. I think each of you have stated that not enough evidence exists for you to monitor the exposed worker and set rates. Yet OSHA has identified nearly two dozen substances for which permanent standards have been enacted. Isn't this the first place you could start and actually there is a starting point already?

Mr. ABBOTT. Well, I guess that's the point. Those standards are based on some history, some experimentation and some actual workplace experience, and I don't think we have as much involvement with that type of standard. It's rather the concept that instantaneously this risk assessment board would come into existence and would have to pass judgment on the entire range of substances used in the workplace, and then try to create an instant industry to go about monitoring.

Mr. **Murphy**. Would you suggest then that we limit the coverage to those known substances, and as they develop continue to add them?

Mr. **Abbott**. I think that that's happening already in the workplace without a Federal program, and that's our experience. When we discover a substance with potential to do damage, we inform an employer, and they will take steps to prevent that either through engineering in the plant or the use of personnel devices to protect the worker.

Mr. **Murphy**. That's kind of a backward approach though, if you identify it to them. They are the ones working with it.

Mr. **Abbott**. Well, that's part of the function of insurance, to examine the risk of the plan, examine the risks and pick it up. I think the combination of OSHA and insurance plus the industry known as risk managers is operating to create a safer workplace.

Mr. **Murphy**. Thank you.

Mr. **Gaydos**. Thank you, Mr. Murphy. Anybody can respond to these questions if you please. It doesn't make any difference.

All of you mentioned the positive benefits to be gained from preventive health care. I think that's a proper conclusion, including the kinds of services that would be provided through H.R. 1309, but on the other hand, you indicate that preventive health care services are an optional benefit, rather than part of a basic package. Doesn't the question then occur if such preventive care offers benefits, shouldn't it be the core of the health coverage package, and shouldn't it be almost automatically included?

Mr. **Richards**. Well, if you focus on providing preventive benefits to the general population as opposed to the specific ones here, it's certainly a good idea, but they're really not insurable. I mean by that that there is no event taking place that triggers a liability that the insurance covers. If an employer wants to have all his employees take an annual physical, which by the way has been demonstrated not to be cost effective below certain age levels, he can certainly pay the insurer to process claims for all his employees that have an annual physical, but there's no real insurance there. It's just a direct passthrough of the costs of the employee benefit he wants to provide those employees. Health insurance has a long history of protecting against actual illness and injury. If we try to extend that mechanism to cover something that's worth doing, but is not of that nature, you're not really using insurance any more. You're simply adding to your insurance a noninsurance feature. I think that's why insurance doesn't routinely provide preventive benefits, because it's just going to add the cost of an annual physical to your premium every year.

Mr. **Gaydos**. If it were included, it would become very expensive, is that what you're saying?

Mr. **Abbott**. Yes, if your premium costs $100 and all your employers have a physical, you add $100 to your employee benefits for every year, so it's such a direct increase in the cost of the benefits is the main reason they're not covered.

Mr. GAYDOS. Anybody else want to comment on that?

Mr. CARMODY. Yes, Mr. Chairman. Also, I think that if you take the concept, and it becomes the core, this becomes the core of all the package that we offer, there is that danger, especially to the smaller groups of employers where since they have to provide these certain benefits, which you have numbered, that they're going to drop other ones that they don't have to provide. They're either going to do that, or in some instances, they might drop off the bottom and not have insurance for their people, because they can no longer afford it.

There's a lot of people out there who employ a small number of people, and this would very adversely affect them. Also, I would like to point out, right now we basically offer—all of our plans are basically cafeteria-type plans, except in our small groups, and the employer can and they do contract with us to offer a myriad of benefits for their employees.

They all do different things, and if the employer feels, as in this case, that's a danger to his worker, that could and in many cases is included in the group health plan at this time. I think that there's many things being done right now.

Mr. RICHARDS. If I might add a thought, Mr. Chairman, there is one way you can get emphasis on preventive benefits, and that is through the health maintenance organization concept. I know commercial insurers, and certainly Blue Cross and Blue Shield plans, are sponsoring hundreds of HMO's around the country. In an HMO, the insurance risk is put on the provider of care, so, therefore, the provider of care has a direct economic interest in the expense of taking care of the patient, and will emphasize preventive services.

Mr. GAYDOS. Who is the provider of care, the doctor?

Mr. RICHARDS. The HMO as a corporate entity is the provider of care. Some of them are for profit and some of them are nonprofit. There are all sorts, but they all have a direct economic self-interest in the people they cover being healthy as opposed to covering them when they are sick.

Mr. GAYDOS. Would you be more supportive of this bill if it required the employer to provide the services without any mention of the health care carriers?

Mr. RICHARDS. I think our concern would drop. What you appear to want is for employers who have these designated employees to provide certain benefits regardless of how they provide them, whether they insure for the cost or whether they just pay it out of their checking account.

If employers have to provide those benefits and want to insure for them, I think you can assume that the insurance industry will respond.

Mr. GAYDOS. A number of corporations, the committee has been informed, already operate worker identification and notification programs in various forms. To your knowledge, any of you, are any of these programs covered under policies written by the various companies?

Mr. RICHARDS. I do not know, but I wouldn't doubt that there are some out there. We could endeavor to find out for the committee.

Mr. GAYDOS. Any others?

Mr. **Carmody**. We can certainly get that information to you. I don't know at this time.

[Information referred to follows:]

Mutual of Omaha Insurance Company ■ Home Office: Mutual of Omaha Plaza, Omaha, Nebraska 68175 ■ (402) 342-7600 ■ V. J. Skutt, Chairman of the Board ■ T. D. Minton, President

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April 16, 1986

David J. Pattison
Health Insurance Association
of America
1025 Connecticut Avenue, N.W.
Washington, D.C. 20036-3998

Re: HIAA March 19 Testimony

Dear Dave:

I am in receipt of your letter dated April 11, 1986 regarding the above-captioned matter. I have reviewed the materials attached thereto regarding our testimony and I believe that the testimony is correct other than grammatical changes which you will make.

On Page 26 of the testimony, Congressman Gaydos asked us if any of our Companies had group policies in force which included benefits for worker identification/notification programs.

As you and I have discussed on the telephone, United of Omaha does not currently insure any groups for these types of benefits. This does not mean that the employers we insure are providing the benefits, but rather that if they are providing benefits they are not doing so through their group carrier.

Also many of our groups provide for yearly physicals or physicals every two years. These types of benefits could be seen as identification programs, but they are not identified as such.

Please give me a call if you have any further questions in this area.

Very truly yours,

Pat

Patrick L. Carmody
Associate Corporate Counsel
Law Division

PLC:jj

Affiliated Companies: United of Omaha ■ Omaha Indemnity ■ Omaha Property and Casualty ■ Companion Life Insurance Company ■ Omaha Financial Life Insurance Company ■ Tele-Trip Company ■ Constitution Insurance Company of Canada ■ Mutual of Omaha Fund Management Company, sponsor of Mutual of Omaha Funds ■ Kirkpatrick, Pettis, Smith, Polian Inc. Investment Bankers ■ Mutual of Omaha International Ltd., London, England ■ United World Life Insurance Company

Mr. GAYDOS. If among the several possible options from which an employer could choose or provide the services, there would have to be an option benefit from the health insurance carrier itself, how likely is it that the health insurance carriers would provide the options assuming additional premiums could be charged? Do you think that would be within their acceptable sphere of operations, and could they assimilate it?

Mr. CARMODY. I would think so, yes.

Mr. GAYDOS. What kind of an additional charge would we incur? You had mentioned that earlier.

Mr. RICHARDS. Again, we don't know. We honestly don't know what the regimen of monitoring, and preventive care, and treatment for these occupational-related diseases might be. The cost would relate directly to the disease in question or the potential disease in question and what the medically approved services were. You would have to deal with a particular case in order to put a price tag on those services.

Mr. CARMODY. I think if I might add to go back to an earlier point, you would also have to have the insurer still in the loop. They would have to have some say-so over whether this particular thing was medically necessary, or again, the cost-containment features don't exist any more.

So if we have a third party, be it the assessment board or the employer determining that these people need certain types of testing, we are going to have a problem, and it's going to be hard to assess the risks before we underwrite it, and it's going to increase the health care costs.

Mr. GAYDOS. Now we are talking about optional benefits from the health care providers and in some instances, self-insurance. Is the committee missing something? What other options do you think might be available to employers?

Mr. RICHARDS. Well, I guess the third option would be for an employer to just directly provide the service with an in-house staff.

Mr. GAYDOS. Any other options you think we have, Federal programs of some sort, of a different nature?

Mr. RICHARDS. I personally assume that's just not in the realm of budgetable solutions.

Mr. GAYDOS. I think someone expressed some concern about the subrogation of costs to the workers' compensation system. Since this was added as a benefit for health insurance carriers, perhaps you can tell us why it's so bothersome, you know?

Mr. ABBOTT. It's bothersome from the perspective that we think it could add legal costs to recovering payments. I understand the way this operates today, the State law makes the compensation insurer or actually makes the employer liable for workplace injuries once an injury occurs or a disease is manifested.

The health insurance contract excludes any benefits payable under State workers' compensation laws, so what happens today is a person, if a health insurer realizes that he is being paid benefits for a work-related injury, they will file a lien with the workers' compensation judgment, and it's routinely handled between the insurance companies with very little litigation expense.

I think the point is that the inclusion of the subrogation provision, in order to work, you'd have to change the State laws to allow the comp, to create a liability for preinjury medical expense which the monitor would include. So we don't think it would add much to the system, and we really don't think it's necessary unless you're going to change the State laws at the same time.

Mr. **Richards**. It wasn't clear to us in reading the bill whether it was the cost of that whole regimen of preventive care and monitoring that was included in the subrogation or just the treatment once a disease is identified. Even then, the workman's compensation carrier would have to agree that it was work related in order for the cost to be collectible by the health insurance carrier. It just seems a rather cumbersome way to go about trying to finance it.

Mr. **Gaydos**. All right; you've raised some good questions and food for thought, so to speak. Would it be your opinion that the committee should drop the legislation, we're on a wild goose chase, or do you think we're on good solid grounds, and we should continue? I know it's going to be a self-serving conclusion, but we do want to hear what you in the business feel down deep in your hearts and based upon your activities, knowledge, information.

Tell us without reservation what you think about the legislation, good, bad, possibility, or are you unalterably opposed to it?

Mr. **Richards**. In concept, it seems to us to be a reasonable attempt to deal with a serious problem. The problems we have raised express the self-interests of insurance organizations.

Mr. **Gaydos**. Well, everything has problems. We all know that. Are we talking about insurmountable? Can you acclimate to them, and are they solvable?

Mr. **Richards**. I don't think any problems we as insurers might have would be as insurmountable as the problems that employers would have with the costs that the mandated benefits would represent.

Mr. **Gaydos**. It would kill your industry or concept, would it?

Mr. **Richards**. Us?

Mr. **Gaydos**. You could survive, couldn't you?

Mr. **Richards**. Oh, things are done to us all the time.

Mr. **Gaydos**. You don't think it's a death blow?

Mr. **Richards**. No.

Mr. **Gaydos**. If we work out some of these rough edges here and there and make some changes, in your professional opinion, it does have a good plausability of working, is that a fair statement?

Mr. **Abbott**. I think, Mr. Chairman, from my perspective the real question is not that we insure it, if we change the legislation, but do we really need it, and I think the opposition is that we serve the employers that are going to be paying for it, and the real decision has to be made between that group and the Government as to what you are going to provide, what you really need.

We are concerned that health costs are getting more and more expensive, and as an industry, it doesn't do us any good to endorse or oppose things if in the long run, it's going to end up in the result that nobody is going to buy health insurance. We think that although we support the goals, we think that its operating on a voluntary basis, in many cases, and my company at least is concerned with it pushing up the costs of health care by possibly providing a benefit to a much larger group than actually needs the benefits, and thus, increasing everybody's costs.

Mr. GAYDOS. I wish you had said anything else but what you said.

Mr. ABBOTT. I'm sorry.

Mr. GAYDOS. I'd hoped you would say you didn't like this aspect or that aspect. Do you mean to tell me that you would take the position, and I imagine with legitimate cause, because again you're a self interest, and I understand that, but do you think we should ignore the problems?

Mr. ABBOTT. No, not at all, absolutely not.

Mr. GAYDOS. And if we do ignore it, isn't it going to cost 20 times as much 5 years down the road, and bring bigger problems with it?

Mr. ABBOTT. That's very possible, and I don't think we should ignore the problem.

Mr. GAYDOS. Don't you think the responsibility of addressing it and trying to help your Government find a solution on it, that you should be part of that, and that it's something we should solve?

Mr. ABBOTT. We would like to be part of the solution. We think we are in a number of instances right now, a part of the solution, but I think we really have to tread cautiously with a massive national program which is what you are contemplating here.

Mr. GAYDOS. Didn't I ask the question as to anybody having any knowledge of whether or not there was any coverage now? I think I asked that question, and your answer was, no, you didn't have any.

Mr. RICHARDS. No.

Mr. GAYDOS. But you're going to take a look at it, you're going to investigate for us.

Mr. RICHARDS. Yes.

Mr. GAYDOS. We appreciate that. I think we have a real problem. I don't think the legislation, proposed legislation is fictitious in any stretch of the imagination. I think it's long overdue. I think a good analysis of all the facts, surrounding facts, lead one to a logical conclusion that something has to be done. What we're looking for is whether it's a pseudo or a real partnership with our industries. We'd like to have you part of it and supportive. If there is some way within the legislation we can change it to make it more acceptable to you and you can participate more, I think we'd break our backs trying to do it.

But, I want you to know that I don't think the committee is going to take the position that we're going to ignore this problem. We just can't. We'd be in derogation of our duties to the country and to our jurisdiction, anyway you look at it. We need your help, we want your help. Please stay in contact with us, and we'll get back to you. Thank you for a good presentation.

The next panel consists of the National Association of Independent Insurers, represented by Mr. Bunn, the American Insurance Association, represented by Mr. Coakley, and the Alliance of American Insurers, represented by Tom O'Day. I am very happy that the titles include vice president and senior counsel and assistant to vice president, because we're now in the position to get some real red hot information, and hopefully some commitments from you fine gentlemen.

You may wish to summarize like the other panel. I have a few prepared questions for you, and maybe we can spread on the record in understandable and acceptable language an example for the rest of the committee hopefully.

I want to thank you for coming here today, and proceed in the manner that you deem best suited to your purposes.

STATEMENT OF J. HOWARD BUNN, VICE PRESIDENT, NATIONAL ASSOCIATION OF INDEPENDENT INSURERS

Mr. **Bunn**. My name is Howard Bunn, and I'm with the National Association of Independent Insurers. The points that we raise have also been raised by previous witnesses, including some of the witnesses that were before you just a few minutes ago.

First of all, I think a concern is whether or not in the way that the bill is currently drafted you're opening the doors for the cost of workers' compensation to be significantly increased. I think specifically the area of concern in that regard is the definition of occupational disease.

The definition, as set forth in the bill, is not a traditional definition in general usage by State and Federal workers' compensation laws. The background of occupational disease defintions for workers' compensation is as follows. The original occupational disease definitions were developed by listing specific diseases that arose out of and in the course of employment.

Well, the obvious flaw in that approach was soon recognized by most of the State and Federal agencies administering workers' compensation laws. What happens when a new disease is discovered and you are confined to compensating only those diseases on a list? Both the National Commission on State Workers' Compensation Laws in 1972, and the Federal Interdepartmental Task Force on Workers' Compensation which succeeded the national commission and which I directed, acknowledged the need for a broader definition for workers' compensation along the following lines: An occupational disease is a disease that arises out of and in the course of employment.

Both reform efforts felt that the definition needed to be carefully crafted to make sure that diseases covered sprung from the employment and not from outside of the employment. Other types of insurance coverage were available for diseases contracted outside of the employment.

So I think the concern we have about the definition in H.R. 1309 is that it is not a definition in general usage that has developed a considerable amount of case law through court interpretations. We would prefer that there be a more traditional type of definition that is better understood by the courts than the introduction of a new concept that would have to go through the court interpretation process anew.

But, we think as currently drafted, the bill could very well provide coverage for cases that are not work related or that did not arise out of and in the course of employment.

Second, we question whether or not the type of bureaucracy that's contemplated by the bill is the type that's necessarily needed. We understand from reviewing the testimony that you previously received from the Assistant Secretary of Labor for OSHA and also from other witnesses that there are Federal inroads already into this area, not to the extent contemplated by the bill. The question that we raise is whether or not it would be preferable to amend one of these other entrees into the field of high risk notification rather than establishing a new separate procedure. In other words, just what is the most practical approach for a bureaucracy or agency to deal with providing notification?

Do you need this overlayering approach, when you have OSHA already required to provide some notification as well as some of the other agencies? If you use this approach contemplated in the bill, does there not need to be some type of coordination spelled out in the bill to take into account the other agencies that are currently into the field?

We think that there is a concern about having three or four, or more different agencies, at the Federal and the State levels, getting into the area of notification without some type of coordination. It places the employer and the insurer in somewhat of a whipsaw of being confronted with a number of agencies that are coming out with regulations attempting to reach similar objectives that would result in considerable confusion.

Mr. GAYDOS. Let me respond to that. I don't want to get you off track, but I think it's important. We waited patiently, 15 years, for OSHA to do what we thought they should and were capable of doing under the existing written provisions of the law, this committee who put the OSHA Act into effect.

I remember the consternation and the difficulty we had in the very, very late sessions we had. We waited all these years, and this particular aspect of the problem has never been addressed. I just want to note that the committee had put this language together in the hope of doing something in an area where we thought they should have acted many, many years ago and they didn't.

So that's the answer to your question as to whether or not we're getting too many overlapping agencies. They don't want to do the work. I'd much rather be doing something else. I know the committee would rather be doing something other than considering this legislation which wouldn't be necessary if OSHA had done what they should have.

Mr. BUNN. Mr. Chairman, in response to that, the point I wanted to leave with you was that if in fact that is the prevailing view of the committee and the Congress, that there needs to be some taking into account of these various laws currently in effect that attempt to do many of the things H.R. 1309 attempts to do.

Mr. GAYDOS. Counsel mentioned to me that he's very concerned with the rising rate of injury and illness, and statistics don't lie. Sometimes they're misapplied and misused, but they're as clear as a bell. We should be doing something about this.

Mr. BUNN. Mr. Chairman, I'd like to respond if I may.

Mr. GAYDOS. Sure. I'm not trying to be argumentative. I just want you to understand why we're having this legislation.

Mr. BUNN. OK. The point I was trying to register was this, that if the prevailing view of the Congress is that this type of legislation is needed, then in that event, the fact that there is already legislation on the books that could to some extent have other agencies at some point get into the field, I would suggest to you that there ought to be some type of coordinating language in your bill to take this into account. Otherwise, you may very well have several agencies at some point, perhaps not now, saying, well, we've got jurisdiction in this field as well, and then you start having multiple agencies coming down with regulations. That was the point I was trying to register. I realize that your perception is that the other agencies are not doing the work that they should be.

The thing that I was trying to stress was there needed to be some coordination of the fact that there are already on the books some existing laws that could be in this area.

The next point I would like to raise is the criteria for identifying workers for notification. I would like to spend some time with people beyond my own field of expertise, such as statisticians and epidemiologists. I think, in a very fine paper, that Dr. Millar raised some interesting points from the National Association of Manufacturers about whether or not the criteria or threshold of the bill for providing coverage to persons at increased risk or at high risk, whether or not that is the best criteria.

I raise this because I respect Dr. Millar, and I feel that he has raised some valid points, and I would like before feeling comfortable with the current criteria to spend some more time with people, other than Dr. Millar, who might have other opinions on coverage criteria.

Mr. GAYDOS. I can understand that viewpoint. The committee has not been on all fours with Dr. Millar, but I can tell you this, on that particular point, he admitted and very clearly so in the record, that he thought this was an area that something should be done about.

I know you want to analyze that, and get some other experts, but he's a pretty well-qualified gentleman. As I mentioned, and I want to stress, we aren't in bed with him. We've had a lot of problems with him at times, but outside of that, I can't question his qualifications nor his sincerity, and this point here, I think that he took a position——

Mr. HOLZMAN. You're talking about Dr. Lamm, Steve Lamm who testified in behalf of the NAM?

Mr. BUNN. Was it Lamm? I'm sorry, I was getting him confused with Dr. Millar. Excuse me, Dr. Lamm, I'm sorry.

Mr. GAYDOS. Regardless, on record, we have somebody——

Mr. BUNN. Yes, let the record show I was confusing Dr. Lamm.

Mr. GAYDOS. We have them both, so go ahead.

Mr. BUNN. Anyway Dr. Lamm's testimony is the one. I was confusing that with Dr. Millar.

Mr. GAYDOS. He's not our friend either. I want to say that he's very strong headed and has his own opinions, but he's been before the committee on repeated occasions, and they've been very adamant in the positions they take. They're pretty tough to get concessions out of, but I want you to know whoever it was, very clearly on record did put enough evidence in to justify this committee putting this legislation together, and hopefully to progress it through to some kind of logical conclusion and get at least part of it adopted.

Mr. BUNN. In any event, what I was trying to again stress on this one was that I would like to spend some time with several people in this area, because I think this is really a critical area.

Mr. GAYDOS. Whatever results you get, share with the committee, if you would. I don't care if it's adverse. We want to hear the adverse conclusions and other optimal suggestions, so get it to the committee if you would, and we'd like to share it.

Mr. BUNN. I'd be glad to.

Mr. GAYDOS. Sorry I interrupted you.

Mr. BUNN. That's all right. The fourth point is there is a rather complex individual notification program that we think, as currently contemplated by the bill, would be very difficult to achieve. I'm not certain how is the best way to notify persons exposed to toxic substances. I question whether or not from a policy point of view, it is something what ought to be done by going into the Social Security records or opening up the tax records.

One could make a strong case for that on the one hand, and on the other hand, one can, if not careful, begin to allow other bureaucracies to go into all those records other than the one that's actually dealing with it. I think there is a potential for abuse in this area.

I think that what would be a better approach would be to try to develop an individual notification program for as many persons as you possibly could identify and have current addresses for. I think the longer away from the time a person has worked for a given employer, obviously the more difficult individual notice is. Which means you may, at some point, have to resort to some type of legal publication or other media advertisements in order to reach that segment of the workforce that cannot be located on an individual basis. I have invasion of privacy concerns about going into the Social Security and the Internal Revenue records and opening them up, or any other agency records that may have some data that could be misused in a legitimate quest for notification.

I would say if any of the other agencies are opened up, that I think there should be some careful thought given to this practice before it is taken.

Mr. GAYDOS. Are you sincerely concerned about the ramifications and the effects of a notification that a person may be exposed to some dangerous instrumentality or substance? Do you think that that would cause a lot of problems for the individual or the operation?

Mr. BUNN. It's not the individual problem. It's the problem of some abuse by others in the Government or others who may get access to the records that are opened up, that there could be some abuse. It's the kind of thing the Civil Liberties Union in my opinion would probably give you the same response that I'm giving you.

I don't have any problem at all about a person who has been exposed to a toxic substance if, in fact, there is a firm foundation of that exposure, being notified.

Mr. GAYDOS. You aren't questioning that?

Mr. BUNN. I'm not questioning that at all. We support the general concept of notification. However, on opening up all of the Federal records that may be available, that any Federal agency may have on a person, I have some, I guess, some basic, as I say, invasion of privacy concerns that this practice could be abused.

I guess what I'm trying to leave with you is the thought that perhaps there is another way for this to be achieved short of having to open up all of the Federal records that might somehow have some information about the whereabouts of a given person.

I am concerned though, and that's another point we raise, about the notification process, about what point do you make the decision that you ought to notify a given employee.

Again, there were several previous witnesses that have raised this point, but I think it is something that needs to have better spelled out criteria for defining at what point one begins to notify an exposed employee, how much exposure, what the length of it is, and so on.

It may be that this will have to be done by Federal regulation, if you have a Federal bill in this area.

Mr. GAYDOS. You feel that there is potential abuse, is that right?

Mr. BUNN. That's on the other point. The other point I just raised while you were reading the language of the bill was that I think there needs to be more attention in the bill paid to the criteria, at which point do you begin to notify a person, and I think maybe there is a concern that has been registered by several other witnesses that have preceded us, that have pointed out that there is a concern about false notification or sending out a notification, and it turns out that it's not legitimate, or it goes out, and maybe the person had a very de minimus exposure, and it's not likely to cause any serious problems, or maybe there's some concern that if you send out some type of alarm signal that it could begin to make a person feel like they really have the disease, create psychological or stress problems when, in fact, the person may have a very slim chance of actually contracting the disease.

I guess again the point on that issue I was trying to register was that I think perhaps the criteria of the bill maybe needs to be spelled out somewhat better.

Mr. GAYDOS. If we're going to be in error, I'd rather be in error on the positive side than the negative. You know, we have people spending a buck and a half, maybe for two or three pack cigarette smokers, maybe $2, $3, $4 a day, you know, paying their own money and getting a warning on a cigarette package that it may be injurious to your health.

Now if they get a notification that you may be exposed to some hazardous material, and eventually, ultimately the material isn't as hazardous as the experts have concluded, I would rather err on the positive side than the negative. If we can in the first instance protect and insulate ourselves from that type of error, I'm sure we'll try to do it, maybe through some kind of language change, but I don't think that's a viable area of too much concern, myself, personally.

Your other points are excellent. I don't think you made a triple on that play there.

Mr. BUNN. Well, you can't get triples every time. In any event, I think that is a point.

Mr. GAYDOS. Touché.

Mr. BUNN. I think it's a point that I would like to see some further crafting of the language.

Mr. GAYDOS. We'll take a look at it, and see if that possibility exists, and if that can be alleviated and make sure NIH down there does a good job, double, triple check it before a notification goes out, really a positive conclusion. When you raise a point that I think is a valid one, we'll take a look at it.

Mr. **Bunn**. In any event, there are several things throughout the bill that we feel like need some further thought, and you raised a question early about whether or not we felt like there was a possibility that we would support this, or whether or not this is something we would also be opposed to, and so on.

I would have to say that I think we perceive that the need is real for something to be done in this area, whether it needs to be done at the Federal level, the State level or whether it needs to be done and spelled out in this bill is another question, and we might have some differences on that.

I think there is a real concern in the workplace with the development of chemicals and development of other possible toxic substances that employees are exposed, that the problem in my opinion, having spent much of my career dealing with occupational disease, is real as far as my point of view is.

However, it's one of these matters that as much thought as possible in whatever direction it is ultimately dealt with needs to be given to this type of approach. Otherwise, you may come out with a piece of legislation that is well intentioned, but may have a lot of consequences that are difficult to deal with. I think from the insurance industry's point of view, the thing that at least from our association's point of view, and the other associations might feel differently, but from our point of view, the way we do it is along these lines.

If we're going to be in it, as several of the other witnesses have pointed out, we need to have a universe described in the bill that we feel like we can underwrite. Whether it be in this area, whether it be in the environmental area or the pollution area and so on, is that many of the bills the Congress has come down with for consideration are very vague on who is exactly to be covered and so on. Several of the previous witnesses, I think, this morning pointed out, that's just an absolutely impossible situation for an underwriter, because you don't know how to charge for it, you don't know how to underwrite it.

Sometimes you have to draw some arbitrary guidelines realizing that they may have to be amended down the line. If you don't set some parameters, then when you get down the road to try and provide insurance coverage, you really will get some hard opposition from the insurance industry and probably employers too, because you don't know how to cost it out, and you don't know from an employer point of view whether or not you can afford it.

So there are a lot of practical considerations that go into a bill of this type, and my closing thought would be, in the final analysis, to try and craft this type of legislation, whether it be here or the State level or wherever, as carefully as possible so that ultimately not only are you able to achieve the objectives that you're after, but also it's something that is realistic, feasible, and practical.

Mr. **Gaydos**. If I may just comment, knowing your connection with occupational disease and workmen's comp nationally, and you know the problems we've had around here. The committee used to have jurisdiction over that, and one time we thought there might be a national workmen's comp and OD Act. Whether or not that would be good or bad, of course, is open to debate. Remember, you're talking about definition and identifying items and disease. You know that they've never been able to solve that problem. Remember the old, with your background you would, the old foundry problems. In all the foundries, most of the work in this country was done in foundries, and when individuals retired and they died from lung disease, it was called all kinds of things. It wasn't compensable in most States, in fact, all States, until after a series of court decisions. They started calling it the foundry cheer, consumption and pneumoconiosis and all kind of various, viscinosis, combinations of both and all that stuff.

We all know that there's difficulty in identifying disease. We all know there will continue to be. New diseases occur as we enlarge our horizons in medical efficiency and things of that nature. I think that we have to do something, and move hopefully forward to affirmative evidence from maybe you or someone you know, a group, an operation, that may point the committee in the right direction to do what has to be done under the circumstances, yet admittedly not be perfect, because we can't do it.

I just can't accept the argument you can't do it, you're going to have to use the inclusion or exclusionary method of listing diseases in an act or in this bill, and we need that because we can't underwrite unless we do have that. You know, we can't get that perfected, perfect position, because we're never going to know.

Mr. BUNN. Let me say this. I realize there is no such thing as the perfect piece of legislation. I guess what I was trying to say is that to the extent possible try to keep in mind the point I mentioned a few minutes ago, in trying to craft the legislation, realizing that obviously there will have to always be amendments. That's the nature of the legislative process.

It may be in some areas, rather than spelling out specifically, there may have to be regulations used in order that there be some experimentation with different approaches. For instance, in the notification area, it may be that you may have to try some different types of notification processes in order to determine which one works best rather than just spelling out one specific one in the package.

I do understand what your point was.

Mr. GAYDOS. I sincerely believe that individuals such as you and who you represent should ultimately be part of helping to pass this legislation in some form or another. Industry should cooperate, and hopefully in an affirmative way, hopefully make changes in there, because eventually it's going to come about one way or another. I think you ought to be part of this in the affirmative rather than in a negative way.

Mr. BUNN. Well, we've tried to be constructive in our comments this morning, and at the same time point out the concerns from an insurer that we have. We hope that our comments have been construed that way.

Mr. GAYDOS. We want the problems in the record, because we want to address them, and I would hope we would have your cooperation. I want to thank you for a good presentation, a sincere one, and if the panel wants to continue, we'll have some more questions.

[The prepared statement of J. Howard Bunn follows:]

PREPARED STATEMENT OF J. HOWARD BUNN ON BEHALF OF THE NATIONAL ASSOCIATION OF INDEPENDENT INSURERS

The National Association of Independent Insurers opposes H.R. 1309 for the following reasons:

1. Costs of Workers' Compensation would greatly increase in impacted areas of coverage, causing an affordability and availability crisis similar to the current problems being experienced by liability insurers;

2. It creates an overlapping expensive bureaucracy with other federal and state agencies, instead of comprehensively developing an efficient approach to the objectives sought by the bill;

3. It establishes insufficient criteria for identifying workers for notification. This could lead to notifying many workers who are not at increased risk;

4. It requires a complex individual notification program that would be impossible to achieve as contemplated by the language of the bill and excessively costly to pursue;

5. Surveillance and monitoring procedures are unwieldy, costly and overlapping with programs currently in place; and

6. It creates a risk notification process that may subject the employee to unnecessary problems with family, employer and community at large.

My name is Howard Bunn, Vice President for Workers' Compensation, National Association of Independent Insurers (NAII), a trade association comprised of over 500 property and casualty insurance companies.

NAII believes in the concept of identifying and preventing illness and death among workers who are at increased or high risk of occupational disease. We further believe this concept can best be implemented at the state level, which is consistent with our longstanding policy on workers' compensation.

Having made this point, however, we believe H.R. 1309 has far reaching implications with much more thought needed in its implementing language and indeed, on the central question of whether or not this is the most appropriate vehicle for dealing with its objectives.

Witnesses at previous hearings have pointed out that OSHA, EPA, NRC, various state agencies and others are already into certain aspects of the issues discussed in this bill. Is there a real need for an overlayering approach to these problems? Can other laws deal with the concerns of high risk occupational disease notification and prevention? Certainly, with the current Congressional sentiment geared toward reduction of the federal bureaucracy, we question the need for bringing the Department of Health and Human Services into an already crowded arena.

I would now like to discuss more fully certain points raised at the beginning of our statement.

The costs of Workers' Compensation would greatly increase in impacted areas of coverage, causing an affordability and availability crisis similar to the current problems being experienced by liability insurers.

The bill's definition of occupational disease is much broader than that in current usage in most workers' compensation laws. Section 10(11) defines "occupational disease" to mean "any disease associated with hazardous occupational exposures which appears in a given employee population at rates exceeding that of the general population;..." Omitted is the language used in nearly every workers' compensation law that the occupational disease must "arise out of and in the course of employment." The bill's language "associated with" is, we believe, broad enough to open the flood gates, for questionable claims, and as Patrick R. Tyson, Acting Assistant Secretary of Labor, OSHA, stated "transform the workers' compensation system into a general social insurance program."

It establishes insufficient criteria for identifying workers' for notification. This could lead to notifying many workers who are not at increased risk.

In previous testimony before this subcommittee J. Donald Millar, M.D., head of NIOSH and Steven H. Lamm, M.D., on behalf of the National Association of Manufacturers, have in some considerable detail discussed the statistical and epidemiological problems with the formulas used in establishing "increased risk" and "high risk." We tend to agree with this assessment. The triggering criteria should have sufficient scientific acceptance to express a certainty of a finding, which the bill fails to do. Dr. Lamm said, "The Section 10 criteria takes no account of the uncertainty within the results and the uncertainty in the conclusion. . . ." Discussing the bill's formulas, Dr. Millar observes: "A more comprehensive and carefully developed decision logic for evaluating studies to determine risk factors for workers included is essential to avoid unwarranted notifications."

H.R. 1309 requires a complex individual notification program that would be impossible to achieve as contemplated by the language of the bill and excessively costly to pursue.

Section 5 sets forth an elaborate individual notification effort of gargantuan proportions. While it may be desirable to do some individual notification, the further one goes back in time and the further one departs from the current work force, the more likely other devices such as publication, media advertising, etc., may have to be resorted to. The bill contemplates free access to records of any federal agency in trying to meet the individual notice mandate. We would suggest that this is opening the doors to abuse and it very well might not achieve desired goals even if allowed.

Surveillance and monitoring procedures are costly and overlapping with programs currently in place.

OSHA's Access to Employee Exposure and Medical Records Rule (29 CFR, Sec. 1910.20) has a section requiring employers to inform employees of the existence, location and availability of medical records and must inform them of their rights of access to those records.

Commencing in 1974, OSHA's health standards pursuant to Section 6(b) have required employers to notify employees of the results of medical examinations required under the standards. Regulations controlling workplace exposures to arsenic, lead, coke oven emissions, acrylonitrile, vinyl chloride, cotton dust, ethylene oxide, and dibromochloropropane (DBCP). Similar rules are being developed by the Mine Safety and Health Administration to deal with air quality and exposure to ionizing radiation.

It creates a risk notification process that may subject the exployee to unnecessary problems with family, employer and community at large.

There are many ethical and practical concerns with regard to notification of occupational hazardous exposure as spelled out in the bill. Once notification is made the employee may experience emotional problems, have expectations of immediate health concerns, to say nothing of the impact on his family. The employee may expect workers' compensation even though he or she may not be disabled. As one commentator said, the employee may begin to feel like the comic strip character in "Lil Abner" who always walks around with a "black cloud" over his head. Suppose no illness occurs. Suppose there is a "false notification." The point to be made is that well thought out criteria relating to notification need to be spelled out less persons needlessly are alerted with resulting anguish and emotional stress.

The bill has other deficiencies. We believe, however, that the foregoing discussion is sufficient to raise serious policy questions that need to be resolved. No one questions the motivations of the authors of the bill. It is imperative that much more thought needs to go into such a proposal before the Congress acts and creates another hastily conceived, costly piece of legislation that would serve no one's best interest.

STATEMENT OF CHARLES COAKLEY, SENIOR COUNSEL, AMERICAN INSURANCE ASSOCIATION

Mr. COAKLEY. My name is Charles Coakley, and I'm with the American Insurance Association. I believe that you're going in the right direction with this bill, as I think everyone has told you, and then there comes a but or whatever, and I have all those reservations as well.

I think that the duplication between this bill and OSHA that's already set up have been pointed out, and you said that OSHA has been around for 15 years and hasn't done what you wanted it to do. I find it hard to believe that a governmental agency wouldn't do what the Congress specifically tells it to do.

My advice would be to amend OSHA to do what you want instead of having two different cabinet offices, two different Secretaries, the Secretary of Labor and the Secretary of Health and Human Services, one with OSHA, the other with H.R. 1309, doing essentially the same thing.

OSHA's statement of purpose authorizes the Secretary of Labor to set mandatory occupational safety and health standards, provide research, establish causal connections between disease and work, and encourage employers to reduce the number of occupational safety and health hazards. It would save money to have one agency, OSHA, doing it. Now, I'm talking of the taxpayers, not necessarily the insurance companies.

The real problem that I have with H.R. 1309, and this has appeared to one extent or another in much Federal legislation, are what I call legal diseases.

Mr. GAYDOS. Legal what?

Mr. COAKLEY. Legal disease. Legal disease, there is something like it in the Black Lung Act, and there were proposed amendments to the Black Lung Act that talked about if you worked in the coal mine for 15 years, and you have some symptoms, then it is presumed that you have black lung.

Here they use 30 percent, and it's more or less the same thing. In trying to get out from under the laundry list of diseases and in trying to bring in every conceivable ailment that might be due to exposure. What you're doing is you're setting up a legal disease for people who have something, but is not due to their exposure at work, but it is presumed to be exposure at work.

In my statement, I give an example of two different groups of workers, each exposed to a lot of stress and strain. We know that these claims are on the increase nowadays. There's more of them than there used to be. Your bill discusses an occupational hazard. There will be two distinct groups, both working under stress and strain, and we find that in one of them, the incidence of heart attacks, high blood pressure, et cetera, is 30 percent higher than the other group.

So right a way, under the terms of your bill, this group with the 30-percent higher rate of heart attack would be eligible to receive the free medical care, the warnings, all of the benefits that your bill provides.

But, if you look a little more closely at the group that has the 30-percent higher incidence of heart attack, you'll find that they're mostly males in their fifties and sixties who have been smoking and drinking for years. We take a look at the other group and find younger males in this group who don't smoke and drink, or if they do, less of it. We know that smoking is declining among younger people nowadays. The rate of drinking has gone down in recent years much to the discomfort of the liquor companies. So your bill sets up that heart attacks are occupationally related according to the bill when they really aren't. They're due to some other thing.

This could be duplicated with any amount of other kinds of diseases that people get, not because they're related, but simply because they have them. That's the problem with the definition of occupational disease. There is a very, very broad definition which simply states that it's occupationally related if it's just greater than a particular percent, or it doesn't say, greater than the population as a whole.

I'd say we do know there are many things that do cause problems, such as asbestos, benzene. Instead of trying this broad approach which is going to bring in a lot of things that are not work related, it is going to cost an awful lot of money.

I'd suggest we start with the things that we know are toxic that are causing problems, that do cause disease in workers. Also, I think that the notification of these employees where you might find a very low incidence of disease is going to create mass hysteria in a lot of cases.

When people hear they might come down someday with something, some form of cancer or whatnot, you would have a lot of running to doctors and clinics and filing of claims, because people would be afraid that they might have this particular disease.

The whole cost of this thing has to be considered. H.R. 1309, I don't know if anybody has been able to price it. I don't think the insurance industry has the tools to put together the cost of this thing, but it would be enormous. If you're going to go to every business, every factory in the country and notify people, if you look at NIOSH's list of materials, 20,000 of these substances that might cause cancer, among then things like salt, for example, so you're talking about every restaurant in the country if we do literally what the bill says. I don't know if there's that many health professionals in the country to do what you want them to do, to talk to all of these workers that are working with these various things.

So I suggest that——

Mr. **Gaydos**. You don't think that salt, did you say salt?

Mr. **Coakley**. Yes, if you take a look at NIOSH's list.

Mr. **Gaydos**. You don't really seriously believe that salt would be on the list.

Mr. **Coakley**. Mr. Chairman, I'm of the opinion that if you give rats enough of anything, it will give them cancer including milk. Maybe salt will give it to them too, but there are some things on the NIOSH list that, you know——

Mr. **Gaydos**. There might be some viable arguments that you might think it's too broad.

Mr. **Coakley**. Yes, I think it's broad.

Mr. **Gaydos**. But you know that when you buy a house, you don't always quote the price you're going to pay for the house. You're always a little bit lower. We ought to tighten it up a little bit.

Mr. Coakley. If I go to buy a house, I know what I can afford. I know what neighborhood to look in, and in that neighborhood I can look around and get a pretty good idea what do houses go for. Looking at your bill, there is no way. This is like a blind man trying to buy a house with no assistance. There is no way to price this thing. There is no way to tell how much it's going to cost.

The people who spoke earlier today said if the price of health insurance were to sky rocket, and I think that it would, you will find employers dropping these things from their benefit plans. Many employees help pay for their health coverage. I do. The price would greatly increase, because you'd have a lot of testing, a lot of examinations done, I think needlessly. So I think to enlist insurance support, we have to know what it's going to cost us, and we have to have some idea that it's affordable. You can do that if we know what we're talking about.

Mr. Gaydos. Am I wrong in concluding that when a corporate structure, business structure, partnership, entrepreneur of any description is in a business, and he's charging a premium for his business, he has an obligation back to society and the Government which permits him to exist, he has an obligation to in good conscience recognize when there is a deficiency out there, and not all on a profit and loss basis, and I want to be very emphatic about it, I can understand anybody taking a position that they're for something or against it, they're critical of it, they make business tougher. But, somewhere along the line creeps in this obligation, and I don't know what you would call it, you could probably call it one of many things, that everybody has, in that business in particular, has an obligation that in a good conscientious manner, and that if there is a problem out there, if there's hazardous materials, and everybody knows it, and they aren't being identified, you almost have, I think, an obligation, a business obligation to participate and to help identify and alleviate those problems. That justifies your existence to make a profit in business. This is how I feel about it. I think you have those obligations. I'm not saying I want to change this form of government. I have no right to do that, but I do know one thing. It's not all one way. You can't look at something just because of profit and loss.

I kept hearing our last panel talking about the great cost involved. Yes, we know there are great costs. There are great costs involved in any change in the Government from the time of 1776. There are always costs, and I say we should try to minimize those costs.

I would hope that the cost factor wouldn't blind our dedicated business people into taking a position that they're going to forget about it, ignore it, let someone else do it. I'm not accusing this panel of doing it, but I just want to emphasize that I think this panel and the last panel has an obligation under those parameters which I've very clumsily outlined, that they should try to help the committee. Yes, take a sincere position. Yes, if it's costly, scream and holler about it.

You know, on the other hand, I think there are merits to the bill, and I think there's substance to it, and there is a large portion of the population in this country today that are working with and handling dangerous and hazardous materials and nobody is doing a thing about it. I think if you don't conclude that, you're either blind or wearing blinders, and you're letting profit and loss override your good sense and judgment.

That is happening, gentlemen. I'm probably talking too long. I hope that I can expect from this panel here that if you sincerely believe that those provisions are too broad, tell us how you'd like to see them tightened, and we'll take a look at it. Maybe there should be a list, I don't know. Maybe we are creating another layer of bureaucracy. I don't know, but I do know one thing. What has occurred up till today does not effectively address the problem, and the statistics are there.

I'm not a doctor. Mr. Millar came up and told us. He said something has to be done. Yes, in his expert capacity, he said, yes, there are things out there and OSHA hasn't done it. So when a community sits for 15-plus years, and an Agency that has been entrusted with the responsibility in the first instance, and for a multitude of reasons hasn't done what we think they should have, and the problem hasn't been addressed, we've got to do something. In doing that, I think we have a right to presume that the business community is going to help us in an affirmative way. Yes, include profit and loss, but on the other hand, don't make that the overall prevailing and primary concern, whether you think it's going to be too expensive or not, or how you're going to do it.

Mr. COAKLEY. Don't misinterpret what I've said.

Mr. GAYDOS. I've made my speech. You can cut out any part of it that you want.

Mr. COAKLEY. I'm not telling you, and I don't think anyone has, throw your bill in the wastebasket because it costs too much. I'm not saying that. What I'm saying is that the way that it's structured, it would be overly expensive and probably cost a lot more than it should cost to even do the job in a more direct way by getting at those people that we know have some problems. Dr. Millar must have a list, if he knows the problems out there, if he sees incidence, rising of diseases in areas. You can take a look at those particular types of workplaces and go from there and see what you can do about notification and treatment.

What I'm saying, I don't believe you should set an arbitrary 30 percent, why not 25, why not 35. Everybody in a group that has a 30 percent incidence of whatever——

Mr. GAYDOS. If you'll support the bill, we'll change it 5 percent.

Mr. COAKLEY. So if we get rid of the legal diseases and have something that would be cost effective, I'm sure you'll get the support of the business and insurance community.

Mr. GAYDOS. As you know in passing, and we'll go on to our next witness, it's really frightening to pick up a newspaper with all the sloppy handling of radium up here, and all that stuff. Do you remember reading that? It was mercury. It's really disturbing, and then on top of that, the entrepreneur or businessowner, whoever it was up there, I don't know if it was a corporate structure or a corporation, but he tried to cover it up. You know, it's obvious. Gee, there was stuff all over the floor, on the ceilings. That's crazy in this modern day and age, and taking advantage of immigrants that aren't acclimated to the American way of life, didn't understand, and exposing them to such a horrible danger, you know. We're not in the realm here of discussing good reasoning whether something is or isn't hazardous. Up there, it obviously is hazardous, the mercury up there. It was just a terrible situation, but that can be compounded.

I can tell you the committee has gone many different places and found like situations. We found a firecracker, fireworks, not a firecracker, a production group down in, where was that, Oklahoma. I'm telling you, I was appalled, actually appalled as to how they did it and who, who worked and under what conditions. Of course, no one argues about whether firecrackers, the type of entertainment items they make for fairs and things like that, whether or not they're dangerous. Everybody knows they're rather dangerous, but if you'd see the situation down there, you'd become alarmed too, I think. Not everything is as rosy in the country as we would like to believe, but, of course, you probably know that.

[The prepared statement of Charles Coakley follows:]

PREPARED STATEMENT OF CHARLES COAKLEY ON BEHALF OF THE AMERICAN INSURANCE ASSOCIATION

My name is Charles Coakley. I am Senior Counsel with the American Insurance Association, a property-casualty insurance trade association of 171 members. Our members write approximately 50 percent of the workers' compensation insurance business nationwide, and thus we have a vital interest in H.R.1309, a bill tha deals with occupational disease.

At the outset I want to state that we are not opposed to the concept of the bill; that is, the notification of workers that they are working with substances which may cause illness. We do, however, object to the methods the bill uses to accomplish this end.

H.R.1309 would needlessly duplicate considerable effort already under way in this area. Many states have enacted right-to-know laws which require employers to post a list of substances used in the workplace. On the federal level there is the Occupational Safety and Health Act (U.S.C. 29 §651 et seq.). This act, dating from 1970, in its statement of purpose sounds much like H.R.1309's statement of purpose. We find for example:

1. encourage employers and employees to reduce the number of occupational safety and health hazards.
2. authorize the Secretary to set mandatory occupational safety and health standards.
3. provide for research in the field of occupational safety and health.
4. establish causal connections between diseases and work.

Comparing the Act and H.R.1309 we find that two different cabinet secretaries would be involved. The Secretary referred to in O.S.H.A. is the Secretary of Labor, while in H.R.1309 the Secretary is the Secretary of Health and Human Services. We believe that it is impractical as well as overly expensive to have two different departments working in the same area.

The bill would have the effect of establishing "legal diseases." Such a disease is established by presumptions which state either that exposure to a certain substance shall be presumed to cause a certain disease or, as is done in the bill, a provision which states that if a disease occurs at a rate 30 percent greater in one group as opposed to another group, that increase is an entitlement to benefits. Instead of looking for true causation, we establish a legal disease.

An example will illustrate the problem with using a percentage incidence as a determinant of entitlement. Assume two groups of workers in a similar type of manufacturing. The pressure to produce the goods is intense. There is a lot of overtime and a lot of stress in both groups. The definition of "hazardous occupational exposure" would include stress. Assume that the rate of heart attacks was 30 percent greater in one group than in the other. By the terms of the bill the group with the higher amount would be deemed a population at increased risk. However, when we come to examine the makeup of both groups, we might find that the group with the higher incidence has workers who are in their fifties and sixties and who smoke and drink more than they should, while the group with the lower incidence are workers in their twenties and thirties who smoke and drink less. Smoking, drinking and stress are known causes of heart trouble, yet the bill would look only at a result and not the true cause.

We believe that there would be a considerable amount of needless worry among many workers because of the notification procedures. Many occupations have peripheral contact with substances that can cause disease. Other workers have considerable contact with such substances, yet we see that only a small number of them become ill. Even something as dangerous as asbestos disabled only a fraction of all who came in contact with it.

Workers who were notified might not be aware that existing safety precautions had reduced the chance of disablement or that very few would be affected. Their families and communities would be alrmed out of all proportion to the real danger.

This worry would lead to a considerable use of unnecessary medical care and could mislead people into filing workers' compensation claims when there was no disability. We have no objection to claims for actual disability, but we can expect that the state workers' compensation systems would be inundated with claims because of the fear of becoming disabled.

The cost of H.R.1309 would be enormous. The cost of the Risk Assessment Board, notification and medical care would be great. Much of the cost would be a governmental expense and paid for by all taxpayers. However, provision (§8(c)) which allocates costs to health care financing systems would impact individual employers and employees. Section 8(c) states that the cost of testing, evaluation and medical monitoring shall be included as a covered item in any health care financing system. Employees with exposure but no illness would be monitored for years. All employees with exposure would be evaluated and reevaluated at periodic intervals. Many employers pay the full cost of employee health insurance; other employers pay part of the cost, and their employees pay the other part. There is not doubt that the cost of health insurance would increase dramatically if H.R.1309 were enacted.

In closing, we would like to reiterate that no one objects to workers' knowing what their exposures are. We submit that this bill is flawed, as we have outlined. We thank you for this opportunity to present our views.

STATEMENT OF TOM O'DAY, ASSISTANT VICE PRESIDENT, ALLIANCE OF AMERICAN INSURERS

Mr. O'DAY. I'm Tom O'Day with the Alliance of American Insurers. I was here when we passed OSHA, and we endorsd OSHA at the time.

Mr. GAYDOS. Did you endorse it?

Mr. O'DAY. Of course, we did.

Mr. GAYDOS. You didn't fight it bitterly?

Mr. O'DAY. We didn't fight it bitterly, and there were a lot of other business people who didn't.

Mr. GAYDOS. Nixon signed a bill, and everyone criticized him, and I always thought he was a good President for many things he had done right, and he signed it.

Mr. O'DAY. And you're not the only person that has been disappointed. Business people have been disappointed. There are expectations when you do something like that. There's an expectation in your bill, good intentions if you will. As you will find the statements that NAII and the AIA and ourselves have given you—and I think generally, probably without exception, the business community—the insurance industry supports the good intentions, the ideas, the concepts that are embodied in your bill.

We have worked on this very fundamental part, particularly mutual insurance. Stock insurance, too, in trying to prevent loss. It is to our best interest to prevent loss. It's very fundamental to the insurance business. So we are working, have been working, will continue to work with people like yourself, with existing agencies, wherever they are, with good people.

But, we do have an obligation, a public obligation, to spell out when your expectations are too high and the costs that are going to be generated. Just to go back to an example that both you and I are very much aware of, which was mentioned earlier, the Black Lung Program. I was a part of that. I remember the estimates from both sides. Both sides were wrong. Those who had proposed the bill said it would cost a few million dollars. Those who were opposed to it said no, my God, no, it's going to cost a few hundred millions of dollars, and as you well know, it's now costing us some $2 billion a year.

That's what I think Mr. Coakley is talking about when he talks about legal diseases. You can set up enormous costs, I mean beyond the imagination of any of us, if you don't carefully structure what you're intending to do.

We've looked at your bill. We do think your intentions are good, but we think that within it there is bad science. It's been talked about by many of the people that have been referred to here today and others who have testified. There is bad science incorporated in this bill. It's going to trigger a lot of things.

If I wanted to be extremely harsh, I would say it's somewhat akin to walking into a crowded theater and yelling fire, where there is no fire, or maybe there is a fire down the street, an important fire that should be taken care of, but you've walked into the wrong building and yelled fire, and consequently caused an awful lot of unintended harmful consequences.

We're not here to debate this with you. I think you're listening, I hope you're listening to the honest criticisms that are being brought to you in the intention, public obligation again, to work on structuring something with existing agencies, if possible. If you need to create a new one, well, maybe, but most of us think that we have too many agencies today, too much regulation.

What we need to do is make the regulation that we have work. We're in agreement on that. I know that they're coming out with hazardous notification standards now. I've heard the testimony from the chemical people, the pharmaceutical people. They're concerned. They have to be concerned. If they're not concerned, they're not good businessmen. It's in their best interest to prevent loss. Nobody gains when workers are hurt or fall ill. Nobody gains then.

Mr. Gaydos, we've known each other on and off for a long time. I respect you. I respect your intentions here. I just think that maybe we're kind of winging a little too hard, trying to do too much, too high of an expectation. Maybe we ought to come back a little bit, work with the existing agencies, strengthen them, be tough with them. You have the power.

Beef up the things that need to be done, but work carefully. Don't go off and try to do everything as this bill attempts to do, and thereby set up a lot of potentially disastrous consequences. You talk about public obligation. There is an obligation of insurers and businesses to stay in business. They have an obligation to their stockholders, to their employees, to their customers and to the society that needs their services and their goods. If they don't point out, if they don't step in here and say this has the potential of disastrous results to the employor community and to the insurance community, then they haven't fulfilled these obligations. And we haven't even touched on the fact that if you start notifying hundreds of thousands of employees that they may have a disease, setting aside how they would use health insurance or workers' compensation, you create liability problems. Let's take a look at liability insurance.

The cover of Time Magazine right today has a major story about what's happening in liability insurance, and it's frightening. What you're setting up here is a mechanism that makes it even more frightening. You're going to warn lots of people that they may have something without any real scientific data or back up that anything harmful has occurred. You're again going out too far, and what happens is that workers' comp isn't going to pay for noninjuries. They're not disabled. They're not really hurt, but they may think they've been hurt.

They can go to the tort system, the liability system. They can file a claim. Just the mere handling of that claim is exceedingly expensive. Over two-thirds of the costs of the liability system are just transaction costs. They're not really paying anybody for any injury or economic loss to them. It's paying their lawyers, our lawyers, and the expense of the lawsuit system. It's not a good way of compensating people. Yet, you're setting up something here that we think will trigger off an awful lot of that.

Mr. Gaydos. I can understand your concern. I think you make cogent points. I really do. On the other hand, I think you have to sympathize with the committee. You're going to have a Johns Mansville on your hands in a lot of areas. They're in bankruptcy. You're going to lose the corporate structure, you're going to lose all the employees, the families and everybody else, all the banks holding paper will lose money. We're stuck on the horns of a dilemma.

I don't profess to say that this bill is perfection per se, I really don't. You know the hard work we had with OSHA. You know, a country that existed for 200 years and never had any kind of law in place, at least after a fashion to try to protect somebody, and it's not working. A lot of it is working too. You know, there are good results from it.

I appreciate since you know the history, and I know what you mean about the cost of black lung. I remember the argument. John Erlenborne was on one side of the argument, and Johnny Dent was the other, and I remember when Erlenborne got up. They're both great men, dedicated. In fact, Erlenborne actually supported the bill ultimately, and I remember when he raised the question as to what was the potential cost, and Johnny Dent said $50 million a year, and Erlenborne said, that's going to be in the billions.

Mr. O'DAY. I don't think he said billions. I think he said hundreds of millions.

Mr. GAYDOS. Yes, and then he asked John Dent, where did you get your statistics, and John Dent said the Reader's Digest. There was no place to get statistics as to contemplations and projections as to what that bill was going to cost. You're right, it's over $2 billion, over $2 billion, and I know that some of the provisions in there needed some working on.

There are some people qualifying that shouldn't be qualified, but basically and fundamentally it addressed the problem. It really did.

Mr. O'DAY. It really addressed the pension problem with mineworkers, not so much a disease problem. They had a terrible pension program. You and I both know that, and the primary sponsor was trying to find money for them. It was, again, good intentions. He couldn't correct the pension program. He could do something in a related area, and he did.

Mr. GAYDOS. Make no mistake about it. There was pneumoconiosis.

Mr. O'DAY. Yes, but not to the extent that people were compensated.

Mr. GAYDOS. You might argue about whether or not a surviving widow should qualify for so many years. You may make an argument there. I don't know. I just think that we have to do something. We feel that after critical analysis and much consideration among us that this is about the only practical way to proceed, knowing the hesitancy on OSHA's part, what they were and weren't doing, and the funding problems and the philosophy and things like that. We just thought that someone has to address the problem. It's either going to be this committee, and if this committee fails with its contemplated legislation, it's going to be next year, it's going to be the year after, and the insurance business is going to have to grapple with the fact and eventually accept what you said. They're part of it. They're part of the problem, and they're going to have to—if you feel what we're proposing is not solid, and it could have great disastrous, counterproductive results—if that's the case, you've got to show us. You've got to show us with facts, and not conjecture, and you've got to maybe give us a substitute to do the same thing. I think we have a right to ask you that. Consider that you're in a partnership with us. I hope as long as I'm going to be here, I don't know how long I'm going to be here, but as long as I'm here, I've always said this committee was an adjunct to the business world, and we know that, and to the labor field too, because that's the people we're supposed to protect.

We're in that position and we'll always work with you, but you've got to give us facts, figures, reasonable projections. You've got to listen to Millar, and what he says and other things, but sincerely, I really respect your taking the time to come down here and telling us about your concerns and you have some good bases, some of them, I think. We need your help. If you think our bill is going to create big problems, show us how to undo it, or get around the problems if you can.

If you want to say the bill should be junked, if you want to take that position, fine, but we don't feel that way. We feel that under the circumstances, it's the best thing going up until something else comes along that will show us a different way. The committee is not here to try to penalize you as an entrepreneur group in this country, a business group, we're not here to do that. We're here to work with you.

[The prepared statement of Tom O'Day follows:]

PREPARED STATEMENT OF TOM O'DAY ON BEHALF OF THE ALLIANCE OF AMERICAN INSURERS

Highlights of Alliance Statement on H.R. 1309

- The Alliance wholeheartedly endorses concern for the protection of the health of our nation's workers. The Alliance also agrees with the objectives of timely and responsible notification to inform employees of dangerous exposure; identification of increased risk, and the prevention of occupational disease.

- The Alliance does not believe, however, that H.R. 1309 or a similar Senate proposal (S.2050) represent the best way to achieve these objectives.

- The good intentions of H.R. 1309 and S. 2050 are placed in the framework of bad science which will generate consequences not intended by their sponsors.

- The Alliance believes that both H.R. 1309 and S. 2050 are unnecessary, badly designed, and detrimental to their basic objectives.

- The Alliance recommends that, instead of these proposals, we work to strengthen existing regulations so that they may do their laudable job of employee protection from hazardouse risks in the most efficient and productive manner.

I am Tom O'Day, Assistant Vice President for the Alliance of American Insurers. The Alliance is a national trade association of over 170 property and casualty insurance companies.

We appreciate this opportunity to provide you with our comments on H.R. 1309, the "High-Risk Occupational Disease Notification and Prevention Act."

Mr. Chairmen and members of the Subcommittees, the Alliance wholeheartedly endorses your concern for the protection of the health of our nation's workers. We also agree with the objectives of timely and responsible notification to inform employees of dangerous exposure; identification of increased risks, and the prevention of occupational disease. We do not believe, however, that H.R. 1309 or a similar Senate proposal (S.2050) represent the best way to achieve these objectives.

These proposals' good intentions are placed in the framework of bad science which will generate detrimental consequences not intended by their sponsors.

Let's look at some of these problem areas.

Unnecessary Duplication

- At present, there are a number of federal agencies already charged with regulating hazardous and toxic exposures both in and out of the workplace. These include OSHA, NIOSH, MSHA, EPA, NRC, and DOT. At a time when severe budget reductions are just around the corner, this bill proposes to add a new burdensome program to the list. A logical question which the subcommittees will want to address is whether adding another federal agency to the list is the best way to achieve the desired result or would the public be best served by reviewing the activities of existing agencies to see whether the desired knowledge could be achieved better through improvements in existing programs.

- In the last few years, we have seen the rapid growth of federal right-to-know regulations, state right-to-know laws, municipal right-to-know ordinances, and community right-to-know proposals on top of an already impressive regulatory structure. Shouldn't we see what impact these have before proposing any additional programs? Until we have time to understand the gaps, if any, left by these programs, it will be difficult to know what is the most appropriate solution.

Problems With at Risk Concept

- Others have previously testified about the bad science incorporated into the bill. What was said is consistent with what we know about the subject. The Alliance urges you to review again the testimony of Doctors Lamm and Karrh and the testimony of Mr. Tyson.

- Legislation based on bad science may pass, but it shouldn't surprise anyone that it usually results in extensive litigation. It would seem to be more efficient to correct or stop the legislation before it becomes law.

- The concepts of "at risk", "increased risk" and "high risk" as used in H.R. 1309 are nebulous and lack the precision expected of scientific terms. Because they are vague and subject to interpretation both as to what they mean and when the criteria are met, it is likely that scientific disagreements will become legal issues.

- The 30% increased risk concept and the 100% high risk concept don't seem to have any basis in science. They appear to be arbitrary legislation of science.

- Statistical associations, particularly relatively weak statistical assciations not supported by other epidemiological data and other studies, do not necessarily equate to causation.

- H.R. 1309 seems to infer that 30% increased risk among a group of workers means that the increased risk is the result of employment exposure. The possibility of other causes is ignored as is the possibility that the association is spurious.

- How do the proponents of the bill expect the Secretary of Health and Human Services to deal with a worker population where exposed nonsmokers have a 25% increased risk while exposed smokers have a 125% increased risk?

- There are many other variations among exposed populations including individual susceptibility and genetic difference, demographic differences, differences in dose and length of exposure, differences in the historical period during which exposure took place, and exposure to other contributing factors that should be taken into account.

- Statistical data is likely to contain margins of error. How is the Secretary of Health and Human Resources supposed to deal with an increased risk factor of 30% plus or minus 5%?

- Implicit in the bill is the assumption that there will be only one workplace exposure rather than multiple causal factors. How are multiple exposures to be dealt with?

- The bill assumes that relative risk is the appropriate way of identifying those who should be notified. However, slavish adherence to the bill's approach may ignore large numbers of exposed workers. For example, assume two exposed 100,000 populations. One has an expected 10,000 cases of disease A, but the actual number observed is 12,000 cases giving an excess of 20%. The other has an expected five cases of disease B, but the actual number observed is seven producing an excess of 40%. There are 1,998 more cases of disease A than disease B per 100,000 population. Under the terms of the bill, there would be notification to those exposed to the substance producing disease B, but not to those exposed to the substance producing disease A.

Downside Risks of Notification

- Any notification program is likely to notify more workers who will never develop a disease than those that do. Can we assume notification is risk free without any impact on those notified? To carry the example to an extreme, assume a rare condition affecting two persons per 100,000 in the population, but affecting three persons per 100,000 as a result of work exposure (a 50% increased risk), this program would notify 999,997 exposed persons who will never develop the disease in order to notify three who may develop it of which only one might be attributable to the workplace exposure. This would be done even if early intervention will make absolutely no difference in the ultimate disease outcome.

- What will be the impact on those notified who never develop the disease? Will some become victims of their own anxiety of developing the disease? If, as the result of notification, the "victims" resulting from the exposure grew from one victim per 100,000 to seven or eight per 100,000 with the additional six or seven suffering emotional problems, would notification be worth it?

- Similarly, one needs to ask what impact will notification have on family relationships and employment opportunities. The bill contains an anti-discrimination provision which when combined with the definition of employer suggests a broad scope, covering any employer. However, discrimination is easier to establish when it involves an existing employer than a prospective employer. Is the federal government prepared to commit the resources necessary to protect notified workers (and what estimated resources are needed) or is the anti-discrimination an empty promise of protection?

- From the perspective of employers, what new lawsuits can they expect to face as the result of notification alleging fear of future harm? This is no imaginary concern. Not only will they face workers compensation claims and tort suits for injuries resulting from the exposures but also from alleged injuries flowing from the notification of the potential for injury. The trial bar is clearly pressing to allow recoveries for emotional injuries caused by fear of future harm in both tort and workers compensation. To date, most of these have involved people with some evidence of asbestosis fearing cancer or have involved allegations sounding of intentional tort. For example see, Wisniewski v. Johns - Manville Corp., 759 F2d 271 (3d Cir. 1985), Gideon v. Johns - Manville Corp., 761 F2d 1129 (5th Cir. 1985), Devlin v. Johns - Manville Corp., 495 A2d 495 (N.J. Super. L. 1985), DiDonato v. Owens - Illinois, Inc. Pa., Philadelphia Court of Common Pleas, June Term 1980 No. 3285, June 13, 1985, cited in 4 PLLR 136 (Nov., 1985). An example of a workers compensation claim for emotional injury because of fear of developing cancer in the future is Martinez v. University of California, 601 P2d 425 (N.M., 1979).

- What are the costs of notification? Notification may be easy when exposure is to one substance and the group is relatively stable and homogeneous such as insulation workers. However, assume that those working on brake linings have a 30% excess risk due to asbestos exposure, can you imagine the difficulty and cost of trying to locate everyone who has ever changed brake linings in a service station?

Other Provisions of Concern

- There is no provision allowing an appeal from a "bad science" decision of the Secretary of Health and Human Services concerning whether a population is at risk, at increased risk, or at high risk.

- Health care financing mechanisms are prohibited from discriminating in the payments of costs against a person who has been notified, 7(c), but 8(c) goes beyond that and interferes with state regulation of insurance and contractual relationships by placing notified workers in a possibly more favorable position by mandating coverage of the cost of testing evaluation, and medical monitoring in all medical plans. This means that a person suffering a similar exposure in a nonwork setting may not only find that his similar costs are not covered, but he is helping to pay for the costs of the individual who is covered by this proposal. Is that fair?

- The subrogation provisions of 8(d), regarding treatment even though using "may" suggesting deferral to the states in deciding when subrogation is applicable, will put pressure on the states to find that the disease is compensable, because notification will be equated with a finding of causation, even though the medical evidence may not support such a conclusion.

- Similarly, 8(e) stating that notification shall not constitute a workers compensation claim implies that notification is equivalent to a finding of causation when the facts may not support any such conclusion. Thus, many exposed individuals will be mislead into thinking that they have or will have a disease as a result of employment exposure, and they will file claims prematurely and claims without merit. This will unnecessarily increase costs of workers compensation both for employers and the state agencies.

- The term "occupational disease" is defined in such a manner that even a 1% excess is treated as establishing a causal relationship (10(11)). This is hardly consistent with science.

S. 2050 Has Similar Problems

The language in S. 2050 is somewhat more precise than that of H.R. 1309. Substantively, some of the provisions are better and others are worse.

It represents an improvement in that there is a provision for input into the deliberations of the Risk Assessment Board and a mechanism for appealing the Secretary's decision to notify a class of workers. It also eliminates the concern of Dr. Lamm that NIOSH via the Risk Assessment Board will be reviewing its own studies. Another potential plus is that it allows the Secretary to utilize the states and private enterprises in the notification process. S. 2050 also recognizes the need to notify previous as well as current employees.

However, the population at risk concept is as vague as that of H.R. 1309, and it eliminates the double trigger of 30% excess and 100% excess in favor of a single 30% excess trigger!

S. 2050 specifically provides that the Risk Assessment Board should not be influenced in its decisions by economic feasibility.

Another troublesome note about the Risk Assessment Board in S. 2050 is that it is proposed that one member be an occupational health nurse. We have nothing against this profession, but it does suggest that the Senate sponsors may be giving more weight to political considerations in specifying membership thats to the scientific qualifications necessary to carry out the functions of the Board.

Our major concern with S. 2050 is Section 9(c) which has been expanded from the rather limited workers compensation language in H.R. 1309 to broad language that could have significant impact on the running of statutes of limitations in tort cases. The language "or in any way effect a claim" is both broad and vague.

Conclusion

Although the Alliance is in complete agreement with the goal of protecting the health and safety of our nation's workforce, we believe that both H.R. 1309 and S. 2050 are unnecessary, badly designed, and detrimental to these basic objectives. The Alliance recommends that, instead of these proposals, we work to strengthen existing regulations so that they may do their laudable job of employee protection from hazardous risks in the most efficient and productive manner.

We appreciate this opportunity to provide your Subcommittee with our views and stand ready to work with you in the detection and prevention of occupational disease.

Mr. Gaydos. I asked a question that I think you answered already, that all of you should be concerned with preventive medical care, including physical examinations and other screening programs, health maintenance. I think all of you are dedicated or committed to that, and looking at cost efficiency and things like that, and the question went on, detecting disease, ultimately save money, all that stuff.

But, the question then posed is why be opposed to the bill, and shouldn't you have some type of a constructive, positive substitute in lieu thereof, assuming that the problem exists, or is it your conclusion as a group that the problem doesn't exist. That was the question I was going to ask, and I think we answered it by our give and take a little bit earlier here. I know you're concerned about it, and you feel that maybe our proposed solution is a little bit harsh, and maybe has some bad things in it and might boomerang on us. I think that's your position, isn't it? You feel you do have an obligation to be part of what we're trying to do here.

We're looking for facts, figures, good commentary, good things. You know, we're in need of expertise. If we bungle along and bring it to the floor, I don't know if we can pass it, in my realm, I try to help and argue it, but whether we pass it or not, that's conjectural, I don't know, but assuming the bill is passed, and in a manner that is unfulfilled as far as you're concerned, or incomplete or counterproductive, maybe part of it is your fault.

So get back to us what you have, as much as you can. You'll find the committee very reasonable. We have competent personnel. We do have some experts in the form of lawyers and long-term experience on the committee here. We try to work on a bipartisan basis if we can. If we can't, we go it alone, and go head on.

So give us that material, give us your criticism, and give it to us in writing. Do you have anything else you would like to say to the committee or emphasize? Do you think the committee should consider a national workmen's comp act? Thank you very much for your appearance, and also for paying your own way to come here. I want to put that on record, because a lot of times, a lot of people don't respect and appreciate the fact that a lot of our witnesses come a long way, stay here, pay these extraordinary hotel bills and all their expenses, and come up here, and sometimes the committee is not very sensitive to their needs. But, thank you so much for your appearance, and please give us the information if and when it becomes available.

I want to thank all the witnesses for a very enjoyable morning. At this time, we'll adjourn until the call of the Chair.

[Whereupon, at 11:13 a.m., the committee adjourned subject to the call of the Chair.]

[Appendix material follows:]

APPENDIX

January 7, 1986

Honorable Joseph M. Gaydos, Chairman
Subcommittee on Health and Safety
B345-A Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman Gaydos:

As industrial hygienists committed to safe and healthy workplaces, we support the High Risk Occupational Disease Notification and Prevention Act of 1985 (H.R. 1309), although with some modifications. We see its potential to provide information which could lead to prevention or treatment of disease, to provide some incentive to employers to abate hazards, and to advance the principle of workers' rights to information about risks they face on the job.

We are distressed that the American Industrial Hygiene Association, of which nine of the signatories are members, has gone on record against the Bill. We wish to let the Congress know that there are many industrial hygienists, including AIHA members, who take a different view, one which we consider to be fully supportive of working people's rights and health.

The most disturbing part of AIHA's testimony is the assertion that the OSHA Hazard Communication Standard will provide adequate risk information to workers, and make H.R. 1309 superfluous, and that the OSHAct has taken care of workplace health and safety. Regardless of one's evaluation of the Hazard Communication Standard, it addresses a different need than does H.R. 1309--identifying current hazardous exposures, not past risks--and so does not render 1309 superfluous. Furthermore, judging from the record of OSHA under the current Administration, we cannot expect aggressive enforcement of the useful provisions of this Standard, or of other OSHA standards.

The AIHA's criticism of H.R. 1309 for referring to harmful substances, rather than to the broader concept of multifactorial risk, can only have come from a misreading of the Bill. Section 4 of the Bill spells out the target populations as those at risk of "disease associated with hazardous occupational exposures," and directs the Risk Assessment Board to identify such populations from "studies of agents, processes or jobs that may be toxic based upon epidemiologic and clinical observations of human populations, or animal and laboratory studies..." Clearly, since the first two listed sources of information are existing disease (not exposure information), other risk factors besides single substance exposure will be automatically taken into account. We would add that the Hazard Communication Standard has the weakness which the AIHA wrongly ascribes to the Bill: it provides information only on isolated substances, not on their use or combined effects with other substances or other risk factors.

We do agree with one point of AIHA's criticism of the Bill's concept of risk: AIHA points out that occupations do change, and that studies which identify work-related disease may reflect obsolete processes or exposure situations. We therefore agree with AIHA that industrial hygiene field studies should be added to the list of information sources for targeting populations in Section 4(b)(2)(A).

We disagree with AIHA's criticism of the Bill for not being preventive. The AIHA dismisses the Bill because it does "not accomplish the task of protecting the individual that the framers...seek." While we fully support prevention as the best remedy for exposure, we point out that prevention is the province of the OSHAct, not of a post-exposure notification law. The AIHA testimony goes on to describe an ideal scenario in which companies employ industrial hygienists and physicians to prevent and treat disease. While we agree this is ideal, it is far from present realities. Such a scenario might come about with vigorous and well funded OSHA enforcement. The lack of H.R. 1309 however, will not make it happen, nor will the Bill preclude companies from abating hazards, OSHA from enforcing its Act, or Congress from passing other preventive legislation.

We are concerned that the Bill does not spell out adequate provisions for dealing with some potentially damaging consequences of notification on workers' physical and mental well being. Workers who learn that their chronic disease may have an occupational origin, cannot be expected to have improved chances of receiving Workers' Compensation under the Bill, especially in states with restrictive statutes of limitation. For those whose chronic diseases are not treatable or curable, the impact could be primarily negative. Even those workers who may benefit from the opportunity to seek abatements, change jobs or get early medical intervention, may need counselling for themselves or their families to help deal with the new knowledge of risk. Thus it is crucial that provision be in place via the ERCs or other resources for both medical and psychological aid before notification is carried out. The current language of H.R. 1309 only mentions that existing ERCs will be selected and some training and equipment will be provided to them. It seems likely that an expanded network of facilities and resources will be needed.

Not only does the Bill fail to specify or establish resources to meet these needs, but the provisions for even directing workers to medical and social services are minimal: 1) they are absent in the goals statement; 2) they are relegated to development of educational programs in the list of research topics (and they are the last item on the list); and 3) they are the last item in the Content of Notification (of risk) and are limited in that list to "name and address of the nearest Occupational and Environmental Health Center..."

In summary, we want to go on record in support of H.R. 1309, with some modifications, and to deplore the action of the AIHA in testifying against the Bill.

Respectfully submitted,

Sonia Berg
Carol Berman
Buck Cameron
Fran Conrad
Diana Crowder
Jeffrey R. Jones
Barbara Materna
Bradley Prezant
Elise Pechter Morse
Margaret Quinn
Venetia Runion
Scott P. Schneider
Noah Seixas
Patrice Sutton (I.H. student)
James L. Weeks
Rishard R. Youngstrom

ccJoseph L. Holtshouser, American Industrial Hygiene Association

Allied Signal

Allied-Signal Inc.
Suite 800
[illegible] Connecticut Ave., N.W.
Washington, D.C. 20036-4188

November 27, 1985

The Honorable Joseph M. Gaydos
Chairman, Subcommittee on Health and Safety
U.S. House of Representatives
Room B-345A, Russell House Office Building
Washington, D.C. 20515

Dear Representative Gaydos:

Enclosed is a copy of the views of Allied-Signal Inc. on the "High Risk Occupational Disease Notification and Prevention Act" (H.R. 1309).

We appreciate very much your willingness to allow us to appear before a hearing of The Subcommittee and regret that scheduling confusion on our part made that impossible. Your staff director, Mr. Holzman, was gracious enough to suggest that we submit written testimony at a later time for inclusion in the hearing record. We submit these comments for that purpose.

Thank you for your consideration.

Sincerely,

Michael W. Naylor
Director, Legislative
& Regulatory Affairs

MWN/gd

Enclosure

Committee on Education and Labor -
Subcommittee on Health and Safety
U.S. House of Representatives

The Allied-Signal Corporation welcomes and appreciates the opportunity to offer comments on the "High Risk Occupational Disease Notification and Prevention Act of 1985" (H.R. 1309). This bill, if passed, would have significant effects on the way the nation addresses occupational disease. We believe that the bill would represent a serious step backwards as it is based on seriously flawed scientific assumptions and would seriously undermine the role and efforts of the Occupational Safety and Health Administration.

Notwithstanding the reasonableness of the bill's goal, we believe the bill presents an overly simplistic view of risk assessment, i.e. it calls for inappropriate findings of risk that would require unjustified actions. In addition, significant portions of the bill appear to be redundant with existing regulatory requirements. Only in a greatly modified version is this bill worthwhile. The basic concept of the bill, as we understand it is that once a worker population at increased risk because of exposure to a substance has been identified, it may be possible to intervene, with medical management or changed working conditions, to reduce mortality or morbidity. The requirement for notification of those workers potentially affected is to stimulate this reponse. Adjunct to this concept is the bill's technical requirement that an increased risk of mortality or morbidity from a specific occupational condition must be demonstrated by comparison of the exposed population to a comparable worker population not so exposed.

Under the provisions of this bill, risk will not be accurately identified. Although the bill's basic concept is quite reasonable, the bill would result in scientifically unjustified finding of risk. The most critical problem is the specific criteria for the determination of "increased" risk or "high" risk of occupational disease. On pages 16 and 17 the bill defines: first, the population at increased risk as the worker population exposed to hazardous occupational exposures and within which an associated degree of disease occurs at a rate of (30%) thirty percent greater than in a comparable worker population not exposed to the hazardous occupational exposure, and second, the population at high risk is defined as the worker population exposed to hazardous occupational exposures within which an associated degree of disease occurs at a rate (100%) one hundred percent greater than in a comparable worker population not exposed to the hazardous occupational exposure.

While it is not spelled out in the bill how risk determinations are to ~~be made,~~ it is certainly inferred that standard epidemiological approaches are to be followed. If we assume this to be the case then the implication is that no determination of risk could be made unless it is in comparison to a comparable non-exposed worker population. However, epidemiological data on comparable worker populations are generally not available. Such factors as multiple exposures, race, sex, age, or demographic differences make the collection of such data exceedingly difficult. Selection of a comparable non-exposed worker population as a control group in an epidemiology study is virtually impossible utilizing currently available data.

Historically, most occupational epidemiology studies have been performed using the general population as a control or comparison group. Where possible, local general population controls have been employed. For example, the population of an industrial setting may be compared to the population of the county in which the industrial setting is located. Strict adherence to the present language of this bill would require that the current body of epidemiology data must be disregarded. This is certainly not the intent of this bill, but if general or local population comparisons are to be allowed, or are acceptable, then the (30%) thirty percent excess disease definition for "increased" risk and the (100%) one hundred percent excess disease definition for "high" risk are clearly inappropriate as general action rules without considerable elaboration.

Let us consider, for example, an epidemiology study that demonstrates an excess risk of (30%) thirty percent for lung cancer as compared to the general population and that no information on worker smoking habits or other potential confounders is presented. Let us also consider a second study that demonstrates an excess risk of lung cancer in a worker population of (230%) two hundred and thirty percent as compared to the general population and that again no information on smoking habits or other confounders is presented or addressed. In the first case it is quite possible that a (30%) thirty percent excess could be the product of smoking habits in this specific population or of some other confounder. On the other hand a (230%) two hundred and thirty percent increase in disease rates in the second study would not be easily explainable by smoking habits, demographics, or other confounding factors. If the use of general population data for a study control is not allowed, as would be implied by the current language of the bill then neither study results could be considered. If a comparison of a worker population to the general population is allowed, but strict adherence to the (30%) thirty percent increased risk definition is required, then inappropriate action would be taken on the basis of the erroneous interpretation of results from the first study. Clearly there must be some allowance for judgement.

The bill should state that observed increases must be statistically significant in order to infer "increased" or "high" risk. Another question on the technical aspects of the bill pertains to the statistical interpretation of study results. Presently, the bill says nothing about the statistical significance of study results, and this is an issue of such importance that it must be addressed. In an epidemiology study, the comparison of risk between the exposed population and a control group is made in terms of standard scientific methodologies such as Standardized Mortality Ratios, Standardized Incidence Ratios, and Relative Risk or Odds Ratios. These statistical measures are usually evaluated for statistical significance in order to rule out the role of chance or random variation. It might be concluded, or at least inferred, from the absence of any requirement that results must be statistically significant that any clear observed increase of a (30%) thirty percent or (100%) one hundred percent magnitude could, or should, be interpreted as demonstrating an "increased" or "high" risk. A simple example of this problem would be to compare (2) two cancer cases in a worker population of (10) ten individuals to a control group having (1) one cancer case, also in a population of (10) ten individuals. Such an event can be easily explained on the basis of chance, but the numbers show a clear observed increase of (100%) one hundred percent. This study lacks size and precision, and it would be inappropriate to draw either positive or negative implications from the results. Further, it is entirely possible that a study with an observed increase of (100%) one hundred percent, if it is a large enough study group, could provide adequate statistical power to infer that any real, as opposed to observed risk, may actually be considerably less than (100%) one hundred percent. It must also be pointed out that certain types of epidemiolgical assays are designed to be only indicators of a need for a more detailed study. Specifically, proportionate mortality ratios fall into this category and should not be considered as a basis for assigning risk.

Risk should be inferred only from supported results. One of the basic tenets of science is that test results must be reproducable. Most of the presently recognized occupational health risks have been identified on the basis of more than one study, or at least in the light of related supporting data or information. This has been the tradition for the formulation of occupational health policy in the United States. Only in the rare circumstance where study results are overwhelmingly positive and portend obvious harm has the interest of public health necessitated action on unsupported data, and this should continue to be the case. The language of this bill is sufficiently vague as to allow for the assignment of risk to an occupational condition on the basis of a single, and possibly weak, study.

An allowance is not made in the context of the bill to provide that judgements on the degree of risk should be made by balance of information or proof. It is not difficult to envision a situation where one study indicates an "increased" risk and a second does not. If we superimpose upon this situation the bill's apparent allowance for extrapolation from animal or laboratory studies to support epidemiological or clinical findings in assessing risk, it becomes clear that an element of judgement as to the weight and significance of the information is necessary. This could be the case even if only epidemiological and clinical observations were employed to estimate the same risk.

The implied assumption that incidence rates are available is incorrect. We must consider that implementation of the bill with regard to incidence rate comparisons may be quite difficult because of the general lack of incidence data either on chronic or acute disease in the United States. Often it is assumed that incidence data (the number of people having a given disease within a geographical area) are readily available for the U.S. population. Unfortunately such is not the case. The National Cancer Institute collects incidence data on the incidence of cancer for about (10%) ten percent of the population of the country. This is the most extensive body of information on the incidence of any disease. However, it covers only a selected portion of the population and it does not provide data by occupation. When we consider the bill's requirement for risk assessment as compared to a comparable unexposed worker population and recognize the absence of acceptable incidence or geographical surveillance data, one could conclude that the bill calls for a mechanism for the collection of incidence or mortality data or similar information long sought after by occupational epidemiologists. This observation is reinforced by the bill's promise and provision for research to identify populations at risk. The collection of incidence, mortality data, or similar information by occupation would be of great value to the country. If this is not a specific goal of the bill, it should be.

The composition of any body designated as having responsibility for the development of a system for the identification and collection of incidence or other data, and research into accepted methodologies, should be broad and include appropriate representatives from industry and academia. It is unreasonable to assume that the broad expertise necessary to fulfill this charter exists within NIOSH. Familiarity and experience with actual occupational situations would be necessary to correlate exposures to such occupational situations and to identify the data elements for collections that would have the maximum of utility in epidemiology studies. It is, afterall, the private sector's occupational setting that is being examined.

No distinction appears to be made between risk for acute and chronic conditions. Such a distinction is important because of the potential differences in accuracy and specificity of information regarding workplace exposures. Most historical cohort studies are used to identify excess risks for chronic conditions. An example is mortality from cancer of various organs. Historical studies are needed because of the waiting period involved in the disease process. These studies are usually unable to provide specific information regarding exposure levels, and actual measurements of the exposure to the substance thought to be the contributor to risk are simply not available. The same is not true of studies of acute conditions which are likely to be identified from current information. It may be presumed that in selected instances current information will be available to identify acute workplace exposures with great specificity. Accordingly, the concept of exposure and dose necessary to illicit an anticipated response should be incorporated into the context of the bill, and a distinction should be made between chronic and acute exposures. Relative risk from a historic chronic condition may be associated only with a specific occupational circumstance or vocation, but it may be possible to associate an acute condition to an actual exposure level to a given substance.

Absent consideration of comparative exposure levels between the lab study and the workplace, there is substantial question in scientific circles whether a laboratory assessment of risk is transferrable to the workplace. The bill states on pages 6 and 7 that in identifying populations at risk of occupational disease, the board, as established under the provisions of the bill, shall evaluate processess or jobs that may be toxic on the basis of epidemiological and clinical observations of worker populations or on animal and laboratory studies. This may be done if any of these studies relate to increased incidence of disease to specific sites, systems, or organs of the body. Under the present language of the bill, it may be construed as being appropriate to come to a decision of "increased" or "high" risk to exposed worker populations on the basis of animal or laboratory studies alone. Extrapolation of controlled animal or laboratory studies to the often complex working environment with acceptable precision is exceedingly unlikely to occur. It is difficult to envision a situation where a lab study would be able to identify jobs or circumstances which would increase the risks to a worker population in accordance with the bill's definition of increased risk. This would refute the concept that a given dose of a toxic substance is necessary to produce a disease response. A substance proven to be toxic in the laboratory may have little practical significance to the working environment if it is employed in such a manner as to preclude worker exposure. It would therefore be inappropriate to label an occupation having an insignificant exposure to a toxic substance as being at "high" or "increased" risk.

Certain provisions of the bill are unnecessarily duplicative. If the primary intent of the bill is to alert workers to the fact that their occupation employs a toxic material, it is unnecessary. The provisions of the Occupational Safety and Health Administration's Hazard Communication Standard currently requires that workers must be informed of the toxicity and hazardous properties of the chemicals they handle. Indeed, the potential contribution of this bill to occupational health, and thereby to the public health, rests with its requirements for the quantification and communication of actual risk, and it is only through this element that redundancy with current legislation is avoided. Under the provisions of the Toxic Substance Control Act information on the disease producing potential of a substance and type of disease produced is being collected. Here again, this bill's contribution, or difference, from these existing requirements, rests in its provision for the quantification of risk in an actual occupational circumstance and the conveyance of this finding to those potentially effected. This is why specific principals governing the use of epidemiological data are important.

Valid peer review is necessary to eliminated unnecessary findings of risk and unwarranted actions of alarm. Some of the observed deficiencies in this bill, and suggestions for improvement, relate to matters of judgement: an allowance for the use of general population data as a comparison to worker populations and for scientific judgement in determining the significance of the results of such comparisons, allowance for the assessment of risk on the basis of balance of information and the identification of appropriate data elements for collection under the bill's research provisions. Within the scientific system, differences in judgement or bias are addressed by peer review. Accordingly, the risk assessment board created by this bill should have broad peer representation: government, industry and academia.

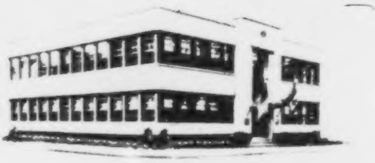
Other presented suggestions relate to actual risk assessment methodology: utilization of the dose response principal, statistical significance, the utilization of standard and accepted epidemiological procedures, peer review, and distinction between chronic and acute risks. While it is impossible and inappropriate to spell out specific methodologies within the context of legislation, it is appropriate to codify general requirements within a statement of scientific principals.

In summary, this bill should be redrafted to specifically address the collection of appropriate occupational epidemiology data and the principals by which such data may be used to assess risk and subsequently to communicate these determinations of risk. By so doing, redundancy with existing legislation is avoided, and a valued service is provided to the country.

Whereas any responsible employer will feel obligated to respond if an assignment of risk is made to a process or occupational setting, the allowance for an unwarranted assignment of risk could impair competitiveness and effectively push some manufacturing offshore.

Respectfully Submitted on
Behalf of Allied-Signal Corporation

T. N. Stewart
Director, Occupational Health
Allied Corporation
P.O. Box 2332R
Morristown, NJ 07960



TELEPHONES AREA CODE 513
PRESIDENT, 221-1525
SECRETARY, 221-1526

AFFILIATE OF AFL-CIO-CLC

INTERNATIONAL
MOLDERS AND ALLIED WORKERS UNION
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1225 EAST McMILLAN STREET
CINCINNATI, OHIO 45206

February 20, 1985

Honorable Joseph Gaydos
Chairman Health & Safety Subcommittee
Education and Labor Committee
Congress of the United States
House of Representatives
Washington,D.C., 20515

Dear Congressman Gaydos:

The International Molders & Allied Workers Union understands that you plan to introduce a bill requiring worker notification. We laud your efforts in this regard. We wish to aid you in this endeavor. Please feel free to use the enclosed health promotion proposal, or parts thereof as you see fit. We would appreciate a copy of your proposed bill. Our comments or recommendations concerning your bill will be forwarded.

Sincerely,

Michael T. Donohue

Michael T. Donohue, Director
Safety and Health

MTD/sls

The International Molders & Allied Workers Union
National Health Promotion Program
Pre Application Grant Proposal

PROGRAM DESCRIPTION

The I.M.A.W.U. proposes a national health promotion program for silicotics and workers who are at high risk of developing silicosis. The Molders Union has identified a cohort of members who would be the chief beneficiaries of such a program. This cohort has been identified as a direct result of the Molders occupational health and safety program built since 1978 with the assistance of OSHA new directions funding. Several of our local unions have participated in silicosis screening programs. Those evaluations found overexposure to silica to have occurred and identified both silicotics and workers at risk of developing the disease. These screening programs were conducted by the Rocky Mountain Center for Occupational and Environmental Health, in Salt Lake City, by San Francisco General Hospital, in Oakland, and by the National Institute for Occupational Safety and Health in Macungie, Pennsylvania. Our program will be structured to educate high risk cohort members about occupational, environmental, societal and behavioral factors which affect health. We believe that at risk individuals should make informed decisions about their health-related behavior. The proposed health promotion project will encompass several ODPHP priority issue areas. The primary program focus will be on health promotion for silicotics and high risk silica exposed workers. Program activities will be targeted to prevention/control of the increased morbidity associated with silicosis, (emphesema, bronchitis, TB, pneumonia and flu). A vital program component will include smoking cessation and wellness promotion. This IMAWU health promotion project is unique in that no previous endeavor in health promotion for silicotics has been done on a national scale. This proposal includes the innovative use of occupational medicine clinics affiliated through the American Public Health Associations' Occupational Health Section to coordinate implimentation of a special medical protocol and the associated data system. This program, in its first year will develop a series of health education materials for IMAWU's high risk members in order to expand on their existing knowledge of respiratory health problems. Topics covered will include the early signs and symptoms of lung disease, and helpful illness prevention measures (eg., periodic medical screening, smoking cessation, protective equipment/clothing, proper work practices). We will prepare and pretest a health screening protocol linked to the educational materials disseminated to workers. The IMAWU will implement this program by using existing occupational health centers which are accessible to the local pools of IMAWU's membership in California, Utah, Illinois, and Pennsylvania. The medical protocol elements will include pulmonary funtion testing, TB screening, influenza and pneumovax vaccination administration. Smoking/alcohol habits will be measured to establish the extent of any problems and enroll people in the appropriate control/cessation programs. As part of this cohort,ex-smoking members could be trained by the local American Lung Association to serve as facilitators for the smoking cessation program. We will develop, administer and analyze a survey of the identified IMAWU members covering their knowledge of health behavior and relationship between selected symptoms and illness in order to determine the level of health awareness among the membership prior to the dissemination of the educational supplements. During year 2 and the first half of year 3, field implementation of the educational packages, medical screening and data systems will commence. During year 3 (second half) we will repeat the health awareness survey and evaluate each portion of the program (education, medical, data base).

The Greater Cincinnati Occupational Health Center (GCOHC) will assist in the design, implementation and evaluation of all phases of the health promotion program. The GCOHC epidemiolgist will be the liaison between the IMAWU, other GCOHC staff and the clinical centers. The GCOHC staff will have primary responsibility for compilation of the educational material. The I.M.A.W.U. director of health and safety will be the program director. The I.M.A.W.U. health educator and the G.C.O.H.C. staff epidemiologist will serve as the project coordinators.

The health educator/administrator, with appropriate consultations and supervision, will prepare the health education materials. These would be mailed to union members as part of the Molder's newsletter distribution process. Additional dissemination methods would involve availability of the education materials at union meetings at the regional and local levels, as well as at the target worksites via shop stewards. The health educational materials will relate directly to the medical exams. Contact will be made with occupational medicine clinics to coordinate implementation of the special medical protocol and the associated data system. The health awareness survey will be conducted for the first time prior to the availability of the educational materials and again four to six months into the third year of the project.

The evaluation of the project will have two main components: The outcome process measures will include the inventory of the educational materials and the timing, volume, location and method of dissemination of those materials. The other segment will include the results of the health assessment surveys, the accumulated sympton/illness frequencies & vaccination rates for the study period, the enrollment and completion rates for the smoking cessation program and the "success" rate of the smoking cessation program at the close of the study period. The referrals to Alcoholics Anonymous will also be tallied.

The health assessment component of the project and its implementation in existing occupational health clinics will be facilitated by the staff of the GCOHC. The Center is a private, non-profit corporation which provides patient care services and conducts occupational safety and health research. It is part of a national network of similar clinics affiliated through the American Public Health Association's Occupational Health Section.

The GCOHC staff includes two occupational medicine physicians, a Ph.D. epidemiologist, a community outreach person, and a variety of administrative people who are skilled in health services administration and health education. It also has physicians, nurses, and psychology graduate students rotating through the Center as part of their respective training programs.

PROGRAM BENEFICIARIES

We wish to provide, to members with silicosis or at high risk of developing silicosis a viable health promotion program. The program will develop modules for educated outreach/self-help and coordinate these efforts by using existing occupational health care services. The goal of these efforts will be to decrease the morbidity and mortality associated with silicosis. This will be possible by providing early diagnosis of respiratory disease, and intervening in the disease process with early treatment. A core component of the program will be the reduction of non-occupational risk factors which may contribute to disease promotion (eg. smoking cessation, substance abuse).

It is the intent of the IMAWU to build upon its current education and training programs in implementing a health promotion program. This will add the dimension of an appropriate use of existing health care services as an extension of ongoing health awareness programs. The IMAWU's committment to this program is demonstrated by its willingness to at a minimum pay 20% of program total costs as well as earmark this project as a priority item for the next three years.

This program of health promotion is a logical evolutionary step for the IMAWU. It links the past six years of grant supported accomplishments in health, safety and general welfare with a proposed three year health promotion program. Our efforts while a New Directions grantee have identified a target population with current needs which match several ODPHP priority areas.

PAST ACCOMPLISHMENTS

The International Molders Union, founded in 1859 prides itself upon being the oldest international labor organization in continuous existance in the United States. The union has its roots in the crafts trades and in particular, the iron molders. Over the past decade the foundry industry has been depressed and the union has branched into a number of other workplaces. Today, approximately 60% of the 45,000 workers which the Molders represent are employed in foundries with the remaining number employed in metal and plastic manufacturing shops.

The I.M.A.W.U. was one of a handful of original recipients of a New Directions grant, when that program was initiated by OSHA in 1978. Though the union is relatively small it was singled out due to its intimate association with an established high hazard industry. The foundry industry was selected by OSHA as its first target for a National Emphasis Program based on the potential risk of occupational disease, and accident and injury rates which were well above the national average for all industries.

Education, training and technical assistance initiatives were begun and remain as major responsibilities of the I.M.A.W.U. health and safety department. The health and safety department has developed many original publications and materials relating to the working environment of our members. Factsheets on virtually every potential health hazard encountered by our membership (eg., silicosis, white finger, back injury etc.) have been generated. A number of training manuals have been produced and used at regional and national classes, workshops and conferences. Three individual texts have been published by the health and safety department, they are Health Hazards: The Ignored Reality - A Union Representative's Guide to Health Hazard Recognition. A 67 page book on hazard recognition, evaluation and control. Health and Safety Resource Directory - A 100 page book listing addresses and phone numbers of virtually every agency and organization associated with occupational health and safety matters. No-Bakes and Others:

Common Chemical Binders and Their Hazards A 95 page book giving vital information on scores of binders and resins. This information includes generic chemical composition, toxic profiles, and recommended methods of control. About 200 copies of this book have been ordered by individual foundries as well as foundry associations.

The Molders union health and safety advisory board includes a representative from each of the eight regions of the union. It has provided the health and safety department with invaluable input and feedback on department activities, and will do so on this proposed health promotion program. Our advisory board serves as a basis for organized dissemination of health and safety information and research programs. Challenge and Change is the health and safety departments newsletter periodical mailed to our local union establish safety committees. The health and safety department is a feature contributor to the Molders Journal, the IMAWU quarterly publication for its membership. These avenues of information dissemination will be used to aid our health promotion program.

PROPOSED BUDGET - YEAR 1 OF PROGRAM

I.M.A.W.U in-kind committment	
(20% Director's time/publication costs)	$10,000
Program Health Educator/Administrator	
(20 hours/week at 50 weeks)	10,000
Program Administrative costs	
(supplies, phone, mail, travel, rent, utilities)	15,000
Consultant fees to G.C.O.H.C 500 hours at 50.00/hr.	25,000
(M.D., epidemiolgist, project coordinator)	
	$60,000

PRESS RELEASE

Statement by Bernard Butsavage, President
International Molders & Allied Workers Union
January 24, 1985
Cincinnati, Ohio

President Bernard Butsavage of the International Molders and Allied Workers Union said today:

"The International Molders Union believes that not only do our members have the right to know about their workplace health risks, but that the government has a duty to communicate, not obstruct this health information.

It is unacceptable for our government to refuse to tell workers of the likelihood of their contracting occupational cancers.

Both workers, our families, and our communities need all the available facts in order to make the most informed choices on matters affecting individual health and community well-being.

The Molders Union will pursue the issue of health risk notification of our members until this cover-up is ended."

# # # # #

AMERICAN NURSES' ASSOCIATION
WASHINGTON, D.C.

POST-HEARING STATEMENT

of the

AMERICAN NURSES' ASSOCIATION

before the

SUBCOMMITTEE ON HEALTH AND SAFETY AND LABOR STANDARDS
COMMITTEE ON EDUCATION AND LABOR
UNITED STATES HOUSE OF REPRESENTATIVES

on

THE HIGH RISK OCCUPATIONAL DISEASE NOTIFICATION AND PREVENTION ACT OF 1985

NOVEMBER 21, 1985

1101 14th STREET, N.W., SUITE 200, WASHINGTON, D.C. 20005 — 202-789-1800

The American Nurses' Association (ANA), which is the largest professional association of Registered Nurses (185,000 members), appreciates the opportunity to comment on the High Risk Occupational Disease Notification and Prevention Act of 1985 (H.R. 1309). ANA commends Representatives Hawkins, Gaydos and Murphy for their efforts to ensure the health and safety of workers.

We join the American Association of Occupational Health Nurses (AAOHN) in stressing the need for primary prevention of occupational disease (Please refer to the AAOHN testimony of November 13, 1985). ANA agrees with our colleagues that research should focus on the prevention as well as treatment of such disease. In addition, we'd like to take the opportunity to stress the special need for research of occupational hazards unique to health care workers. The National Institute of Occupational Safety and Health (NIOSH) has long acknowledged that hospitals are dangerous places to work. Accordingly in 1982, the agency established a task force on hospital hazards. Presently the task force's recommendations are undergoing final review before their release.

ANA is also concerned that the proposed Risk Assessment Board would be limited to the designated four categories which do not include an occupational nurse. We urge the subcommittee to reconsider and include the occupational nurse as a member of the Board. Our association has been contacted by the Occupational Safety and Health Administration (OSHA) many times in the past for information regarding the practice of occupational nursing in the workplace. The expertise of occupational nurses that has been shared with OSHA would also be of great benefit to the Risk Assessment Board. Therefore, we share AAOHN's belief that the exclusion of occupational nurses, who provide much of the on-site occupational health care, from the Risk Assessment Board will be counterproductive to the functions of the Board. On a similar note, ANA believes the void in nursing input at the agency level could be filled if an experienced occupational nurse was employed at OSHA and utilized as the physician staff members are in the development of OSHA standards.

ANA understands AAOHN's concern regarding the implementation of the notification and counseling requirements and agrees that such counseling is critical. However, the protocols for those functions may be more appropriately addressed by the regulatory agency responsible for implementing the legislation. ANA wishes to stress our belief that the nurses' role in providing such services is invaluable and historically has been very effective.

Although the American Nurses' Association realizes that "medical monitoring" may be a term of art, we can appreciate the concerns of AAOHN that it may be inadequate for the current level of practice of occupational health. We therefore urge the subcommittee to consider the suggested AAOHN change of the term or, at minimum, a revised definition of the term to reflect the present focus of occupational health.

We thank the subcommittee for this opportunity to comment on H.R. 1309.

American Petroleum Institute
1220 L Street, Northwest
Washington, D.C. 20005
202-682-8400

Charles E. Sandler
Vice President

October 30, 1985

The Honorable Joseph M. Gaydos
Chairman, Subcommittee on Health and Safety
Committee on Education and Labor
U. S. House of Representatives
B-34A Rayburn House Office Building
Washington, D. C. 20515

Dear Congressman Gaydos:

The American Petroleum Institute (API) represents 230 corporate and 6000 individual members. We are writing to comment on H.R. 1309, the "High Risk Occupational Disease Notification and Prevention Act of 1985."

API opposes this legislation. Detailed study of the petroleum industry contradicts the assumption underlying the bill, namely, that "a significant number of workers suffer disability or death or both from occupational diseases caused by hazardous occupational exposures." For the petroleum industry, available data do not indicate significant risks of death from cancer, heart disease and stroke caused by occupational exposures. These data, which are routinely submitted to the government, do not suggest the need for extensive notification and disease prevention activities as called for in the proposed legislation. Congress might better achieve worthwhile results by addressing the well documented life-style and dietary factors that are overwhelmingly responsible for the morbidity and mortality in the United States. We shall address these points in turn.

During the past decade, both API and its member companies have been active in investigating the possible association between employment in the petroleum industry and causes of death among our employees. These carefully designed epidemiologic studies have included sufficiently large work forces to detect excess risks of disease. These studies, some twelve in number, demonstrate that in general, employment in this industry is not associated with an increased risk of death from chronic disease. While excess deaths from certain cancers have been observed at specific plant sites, these observations are not consistently seen throughout the industry. Indeed, the overall observed mortality rate for petroleum workers is less than that seen in the U.S. male population. Decreased mortality is also seen for heart disease, stroke and respiratory disease.

Although these studies are restricted to mortality data, they nonetheless reflect a significant commitment by the petroleum industry to evaluate potentially adverse health effects associated with the production and use of our products. These efforts include a broad spectrum of scientific disciplines: epidemiology, toxicology, industrial hygiene and related biologic sciences. Much of this work is reported to the Federal government either voluntarily, or as required under various environmental-health statutes. This research not only helps the petroleum industry maintain a safe work environment, but also provides information for regulation, health advisories, hazard communication, and worker training. In short, industry and government mechanisms already exist to study, report and act on any indication of excess health risk to occupationally exposed populations.

If it is the intention of the Congress to reduce the incidence of environmentally-related disease in an effective manner, API suggests that the focus of attention should be directed toward lifestyle. In 1981, two distinquished epidemiologists studying the problem of the causes of cancer estimated that only about 4% of all cancers could be attributed to occupation. While this 4% figure is not inconsequential, it implies that reductions in the nation's cancer burden will not be significantly affected by reducing the occupational exposure to toxic chemicals. The other two leading causes of death, heart disease and stroke have not, to our knowledge, been associated with workplace exposure to chemicals. In contrast to occupation, a recent review by John Higginson, former Director of the International Agency for Research on Cancer, World Health Organization, estimates that the proportion of avoidable cancers due to tobacco, alcohol and diet is approximately 70 percent.

The observations we have made concerning chronic diseases in the United States were also recently documented in the September 6, 1985 issue of the "Economist" in an article titled "The Western Way to Die." We enclose a copy for your information.

Sincerely,

Charles E. Sandler

Enclosure

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SCIENCE AND TECHNOLOGY

The western way to die

If you live in the west, you will probably die of a heart attack, a stroke or cancer. Despite intensive research, these diseases will remain largely incurable for many years to come. But they are already preventable.

There is nothing new about preventive medicine. Many of the measures responsible for the enormous reduction in youthful mortality in the last century were preventive. In the 1850s a quarter of those born in Britain were dead by the age of five, another quarter died before the age of 40, another quarter before they were 70. Now, only 1% of Britons die in childhood, 2% before the age of 40, 28% in middle age and the rest make it into their 70s. It was vaccination, refrigeration, sanitation and other improvements in hygiene that changed those figures most, not drugs.

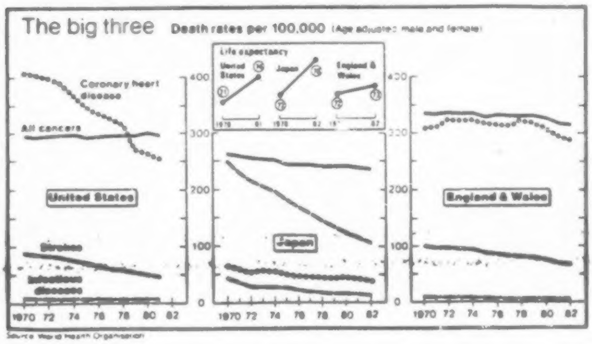
Aids excepted, infectious disease has been virtually vanquished as a cause of death; less than 1% of Britons and Americans die of it. But that has left three big killers: cancer, coronary heart disease and strokes. Between them they cause four out of every five middle-aged deaths in Britain. Combinations of surgery and drugs may eventually conquer them. Yet foolproof cures will be a long time coming. There are clear links between all three diseases and diet, just as there are clear links between infection and hygiene. Time to start preventing?

Many people assume that pollution is a big, preventable cause of cancer. Avoiding asbestos helps, as does preventing leaks from chemical and nuclear plants. However, the impact of these factors on mortality rates is negligible. There is probably more risk of contracting cancer from cosmic radiation received in a transatlantic flight than from working for a year near a nuclear plant. Among the 82,000 who survived the atomic bomb at Hiroshima there have been only 100 extra cases of leukaemia. The biggest causes of cancer, heart attacks and strokes are things you voluntarily put between your lips: cigarettes and cream buns.

The most preventable and least curable disease is lung cancer. According to Dr Richard Peto of the Radcliffe Infirmary in Oxford a third of all deaths in the 40-69 age group may be attributable to smoking through cancer and heart disease. Nobody has much of an idea how smoking causes cancer and heart disease, but it very plainly does.

The link between diet and disease is murkier. Attempts to rank the various risk factors in heart disease, like America's seven-year, $115m multiple-risk-factor-intervention trial (MrFit), have failed. Why, then, are so many scientists sure that changing people's habits could improve their health—so convinced that fat, and its sinister cousin cholesterol, cause heart disease? Last year, a panel from America's National Institutes of Health (NIH) concluded that elevated blood cholesterol is not just a risk factor in heart disease but a direct cause. Its conclusions are not watertight. You judge.

Some people are fitter . . .



The big three **Death rates per 100,000** (Age adjusted male and female)

Source: World Health Organisation

Putting fat on trial

First, the case for the prosecution. There is a biological reason to expect cholesterol to damage the heart's arteries. Heart attacks result when the arteries leading to the heart are blocked. The blockage can be caused by blood cells called platelets adhering to cholesterol and to blood-vessel linings, forming a mass called an atheroma, which reduces the bore of the artery and dams the blood.

There are several kinds of fat that contain cholesterol, of which HDL and LDL are two. It is LDL that is associated with heart disease. Its job is to carry cholesterol from the gut to the liver. More LDL in the diet might mean more chance of an atheroma. Among the factors which are thought to influence the rate at which cholesterol from LDLs gets deposited in the arteries are smoking,

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high blood pressure and genetics.

That is how cholesterol could cause heart attacks. What is the evidence that it does? Animal tests show that high levels of cholesterol in the blood are associated with atherosclerosis. About three dozen different species of animal (including monkeys), when fed on high-fat diets, develop atheroms. If monkeys are subsequently put on low-fat diets, their arteries seem to return to normal.

For human beings, most of the evidence is circumstantial. The Japanese have many fewer heart attacks than Americans or Britons. In the United States about 40% of calories are consumed as fats, in Japan about 14%. Japanese who have emigrated to America and eat American foods suffer heart attacks with American frequency.

But does less cholesterol produce less heart disease? Again, the circumstantial evidence is good. The incidence of heart disease in the United States has fallen to two thirds of what it was in 1970. Why? It would be perverse to call it coincidence that Americans now consume less fat-rich food, take more exercise and watch their blood pressure more than they did, though they are also better treated in hospital now. Americans' consumption of butter, milk, cheese and eggs has declined steadily and substantially. Those who have reached the age when heart attacks are common have reduced their consumption of meat, and cigarette smoking is down. The 20% of Americans with the lowest cholesterol level in their blood are half as likely to get heart disease as the average American, while the 20% with the highest level are twice as likely to get heart disease.

... than others

Imposing proof? Hear the case for the defence. This rests, first, on the lack of direct evidence. Taken together, the re-

The balanced diet

FAT

Which type of milk do you drink?

High/full fat	3
Medium fat	2
Semi-skimmed	1
Skimmed/none	0

Do you eat cream or evaporated milk?

Every day	3
Several times a week	2
About once a week	1
Less than once a week/never	0

Which do you usually eat?

Butter or hard margarine	3
Soft or polyunsaturated margarine	2
Low fat spread	[✓ 1]
Nothing	0

Do you spread it:

Thickly	3
Medium	[✓ 2]
Thinly	1

Which do you usually use for cooking?

Lard, meat fat, butter, margarine	3
Mixed/blended vegetable oil	2
Corn, sunflower or olive oil	[✓ 1]

How many times a week do you eat chips/french fries?

Five or more	3
Two to four	[✓ 2]
Once	1
Occasionally/never	0

What type of cheese do you eat most of?

High-fat—Cheddar/cream/Stilton	[✓ 4]
Medium-fat—Camembert/spreads/Edam	3
Low-fat—cottage/curd	1
Variety	3

How many times a week do you eat chocolate bars?

Six or more	3
Three to five	2
Once or twice	1
Occasionally/never	[✓ 0]

Do you eat high/medium fat cheese?

Five or more times a week	3
Three to five times a week	2
Once or twice a week	1
Occasionally/never	0

How much meat fat do you eat?

All	4
Some	3
None	1
Vegetarian	0

How many times a week do you eat sausages/meat pies/burgers?

Six or more	3
Three to five	2
Once or twice	[✓ 1]
Occasionally/never	0

When cooking bacon or burgers, do you:

Fry	3
Grill with added oil or fat	2
Grill without adding fat	[✓ 1]
Eat occasionally or never	0

How many times a week do you eat a whole packet of nuts?

Six or more	3
Three to five	2
Once or twice	1
Occasionally/never	0

How many times a week do you eat crisps/potato chips?

Six or more	3
Three to five	2
Once or twice	[✓ 1]
Occasionally/never	0

How many times a week do you eat cream cakes?

Six or more	3
Three to five	2
Once or twice	1
Occasionally/never	[✓ 0]

TOTAL ____

FIBRE

What kind of bread do you eat?

Wholemeal	3
Brown	2
White	[✓ 1]
Mixture	2

How many slices of bread do you eat a day?

Six or more	6
Three to five	4
One or two	[✓ 2]
None	0

How many times a week do you eat cereal?

Six or more	4
Three to five	[✓ 3]
Once or twice	2
Occasionally/never	0

How many times a week do you eat rice or pasta?

Six or more	6
Three to five	[✓ 4]
Once or twice	2
Occasionally/never	0

How many times a week do you eat boiled/mashed/jacket potatoes?

Six or more	6
Three to five	4
Once or twice	2
Occasionally/never	[✓ 0]

10

TOTAL ____

If your fat total was less than your fibre total, well done

If your fat total was about the same as your fibre total (within one or two points), try to cut down on fat

If your fat total was greater than your fibre total, you need to make changes in your diet

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sults of 17 clinical trials seem to show that an average reduction of cholesterol of 10% reduces the risk of heart disease by 20%. Yet not one of these trials has conclusively linked cholesterol and heart disease. The MrFit trial failed because those in the control group reduced their heart-disease rate (and their fat intake) on their own initiative—along with the population at large—thus invalidating comparisons with those selected to reduce their fat.

What is worse, some of the clinical trials showed an inexplicable small rise in deaths from causes other than heart disease in those with lowered cholesterol. Admittedly, the causes of these other deaths varied widely, from cancer to suicides or car accidents. And some may have been due to the side-effects of the drugs used in clinical trials.

The counsel for the defence also argues that there is little relationship between the amount of cholesterol eaten and cholesterol levels in the blood. Blood cholesterol is controlled by the liver and depends on factors like genetics. The prosecution objects at this point that, while genetics plays a part, there is good evidence that too many saturated fats (which are found in dairy products and meat) can trigger the liver to make extra cholesterol which is then released into the blood. This is why low-fat diets recommend a reduction in saturated fats rather than in cholesterol itself.

Here the prosecution has fallen into a trap. Replacing saturated fats with polyunsaturates, like those in some vegetable fats and oil, may depress levels of the other kind of cholesterol-containing fat (HDL), which could be undesirable. The American Health Foundation (AHF) found that feeding animals polyunsaturated fats might give them colon cancer. The prosecution responds by calling Dr Jim Mann of the John Radcliffe Hospital in Oxford, who reckons this may be true but only when very large amounts of polyunsaturates are consumed. Meanwhile some preliminary studies have suggested that it may be better to replace saturated fats with monounsaturated fats, found in things like olive oil. Animals fed monounsaturates show no ill-effects. Yuppies therefore live longer.

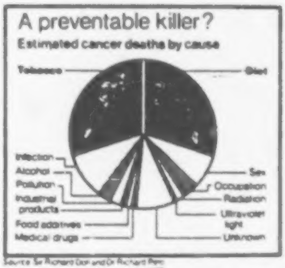
The defence continues: low blood cholesterol levels have been associated with cancers, in particular colon cancers. The evidence for this comes from the Maoris in New Zealand. However (says the prosecution) a number of studies, some still underway, have shown that low blood cholesterol is a consequence rather than a cause of colon cancer. Cancer cells are scavengers and may be swallowing up cholesterol from the blood and thereby reducing blood cholesterol levels.

The evidence, in other words, is superficially convincing, but the defence can pick many holes in it. So it is with many other links between habits and disease. You would probably convict smoking and lung cancer despite the lack of direct evidence. But what about the link between salt and strokes? Japan has one of the highest (though falling) incidences of stroke. The Japanese eat lots of salt. Clinical trials indicate that those with very high blood pressure (and hence at risk for strokes) can reduce it by eating less salt—but are such people typical of the much greater number whose blood pressure is only slightly too high?

Consider the link between fat in the diet and cancer of the breast, colon or prostate. There is circumstantial evidence for it: breast cancer, the most common cancer in women in the western world, was until recently very rare among women in Japan. Japanese women who have emigrated to countries like the United States, where diet is fattier, show the same risk of contracting the disease within two or three generations. Countries where the consumption of fat is high also seem to have a high incidence of breast cancer.

A preventable killer?

Estimated cancer deaths by cause



Source: Sir Richard Doll and Dr Richard Peto

There is a theory to explain that link between diet and colon cancer: fat strips off the protective layer of the gut and allows "oxygen radicals" produced by digestion to get at deeper (and thus less disposable) cells and damage their genes. Fibre (the recommended substitute for fat in the diet) has been linked with a decline in colon cancers. But the evidence is not conclusive.

Even so, some scientific bodies have started to recommend small shifts in the diet. In Britain a government-backed leaflet will soon give the public advice about fats and fibres (see the quiz on page 76). The advice will be to reduce the fat content from 40% to 35% of diet (and saturated fats by a quarter), which should result in a 10% drop in the incidence of heart disease. This could be achieved without too drastic discomfort: reduce butter consumption perhaps by eating more polyunsaturated margarine (or better still olive or sunflower oil), drink more semi-skimmed milk, switch from hard cheeses like cheddar to edam or brie, cut down the amount of fatty meat eaten and compensate by eating more poultry or fish, eat more fibre (eg, fruit and vegetables) to make up the calories.

Screen in time

Doctors can do more than advise people how to live; they can seek out the early signs of disease and stop it from doing serious damage. Such screening is suitable for diseases which develop over several years and which can be detected reliably, simply and cheaply. Fast growing cancers, like lung cancer, are poor candidates; by the time lung cancer is visible on an X-ray it is probably already too late.

One trouble with screening is that its benefits are invisible, so governments sometimes regard it as an unnecessary drain on medical resources. They should start extending it instead. Though it is difficult to count the lives saved, there is now enough data to prove its value.

It is generally accepted that testing of all women over 20 for signs of cervical cancer (at the neck of the womb) could almost eliminate cervical cancer as a cause of death. The test used is the Pap smear (named after its pioneer George Papanicolaou, a Greek physician). A few cells are painlessly removed from the cervix using a spatula, stained and examined under a microscope. Potentially cancerous cells, which may appear up to 20 years before the cancer poses a fatal threat, can be identified because they absorb more stain than normal cells. Once identified, abnormal cells can be destroyed by laser, or burnt or frozen out.

The Pap smear meets all the requirements of a good screening technique; it is simple, reliable (wrong less than 1% of the time) and, at $5 a smear, cheap. Its effectiveness is almost beyond dispute. Twenty years ago Iceland introduced a programme to screen all adult women, including those past menopause, every two or three years. Deaths from cervical cancer have fallen to a third of what they were before the programme. Other countries such as Sweden, Finland and the United States have had similar successes.

Not Norway. Only 5% of the female population is screened there and the disease has increased to 115% of the 1965 figure. In Britain, death rates from cervical cancer have fallen only slightly over the past 15 years. There has been a big increase in British screening, but most of it is done in family planning clinics, so elderly women are not being tested. There have also been recent worrying

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cases of positive results getting lost in the British bureaucracy.

Unfortunately, there is no similarly cheap and uncontroversial test for breast cancer. It can be detected by physical examination, but not always early enough. Far better is mammography, the examination of the breast by X-ray. A large American study, known as the Hip study, showed in 1962 that deaths due to breast cancer in the 40 to 64 age group among 62,000 women could be reduced by a third through regular mammography (every year). But there are objections: X-rays are themselves inherently dangerous and the technique is not very selective. Some women may have had their breasts needlessly removed.

How expensive is mammography? Dr David Eddy of the Centre for Health Policy Research and Education in North Carolina, using data from the Hip study, calculated that the all-in cost of screening (with a yearly mammogram) each woman over the age of 50 is $2,000 if you include the cost of treatment; yearly physical examinations plus treatment costs about $700. More recent studies in Sweden and Holland say that the test is now safer, more reliable and cheaper than in the early 1960s and can achieve a 40% decrease in breast cancer mortality with biennial screenings in women over 50. According to Dr Nick Day of the International Agency for Research on Cancer in Lyon in France, who was involved in both clinical trials, the cost of each mammogram is roughly $15. An American company called Spectrascan in Connecticut has a device that uses infrared and red light beams instead of X-rays.

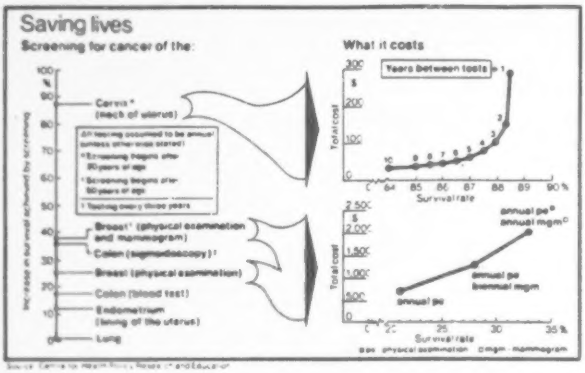
Reliable screening techniques for other cancers are still some way off. King's College Hospital in London is looking at the use of ultrasound to detect early signs of ovarian cancer. For colon cancer, the tests so far available are either too inaccurate (looking at blood samples in faeces) or not easily administered (the sigmoidoscope is inserted through the rectum). President Reagan's operation has multiplied the number of Americans requesting tests for colon cancer.

Screening for circulatory diseases poses different problems, even if it is accepted that cholesterol and high blood pressure predispose for heart disease and stroke. So far cholesterol tests have been considered too tedious for general use. A blood sample must be extracted with a syringe and sent off for analysis.

Dr Michael Oliver of the University of Edinburgh reckons that screening the whole male population of Britain between the ages of 15 and 55 for raised cholesterol levels would cost some £40m. So there have been suggestions that, in the short term, screening for cholesterol should be confined to those in "high-risk" categories eg, those with a history of heart disease in the family, which means less than 10% of the population. It needs to spread further than that. A British trial was set up 18 months ago, involving 25,000 people, to establish the distribution of plasma cholesterol levels in the country and the feasibility of screening for cholesterol through general practitioners. Preliminary findings suggest that almost a quarter of Britons are at risk.

Testing cholesterol levels will be much easier with the invention of new machines which can measure plasma cholesterol in two minutes from a pinprick blood sample. Several firms, including Kodak and Boehringer Mannheim, have begun to market such machines at $4,000-$5,000 each. Each test costs only 70 cents.

Once your cholesterol levels are known, what can be done? For those with very high blood cholesterol the NIH recommends drugs, but these are unpalatable and some are associated with side-effects. Changing diet is the only sensible course available to the 15% of Americans who have moderately high blood cholesterol. The situation is much the same for blood pressure. Because of the link with strokes, most doctors think you should be encouraged to test your blood pressure every year.



Source: Centre for Health Policy Research and Education

Saving money as well

The American health-care budget rose from $133 billion in 1975 to $355 billion in 1983. This represents an annual growth of 3% or 4% above the combined rate of increase in prices and population; as a proportion of gnp American health-care costs have increased from 8.2% to 10.8%. About half the money is spent in nursing homes and hospitals. Heart disease and cancer account for 30% of short hospital stays and 40% of nursing home expenses.

Yet a derisory proportion of America's health budget goes on prevention, while more and more is spent on sophisticated treatment for chronic diseases—from artificial heart transplants to new anti-hypertensive drugs. Medicare, the state-subsidised scheme for the elderly, does not normally pay for prevention. In Britain, where the state plays a far bigger role in health-care, only about 4% of the health budget is spent on preventive medicine (a definition which includes family planning clinics).

Countries are reluctant to devote more resources to preventive medicine because its costs are immediate while the benefits may be long deferred. Doctors have been educated to deal with disease, not prevent it. Dr Howard Hiatt of the Harvard School of Public Health says it is easier to get permission for therapeutic programmes than for preventive ones. To justify the latter you are required to show that they save money. The most popular preventive measures are cheap ones with quick pay-offs, like white lines on roads to avoid car accidents, or the fluoridation of water to reduce dental decay.

Everybody dies in the end. You could argue that, since a country is better off when the smokers and fat-eaters pay for pensions they will never collect, telling people to change their habits is not only bossy but expensive as well. On the other hand, like all medicine, prevention does not just prevent death, it prevents illness and discomfort as well. Average life expectancy, already near its theoretical limit, in rich countries, will increase as the middle-aged live longer. Medicine is therefore achieving its aim: a world in which all premature death and illness are banished, so that everybody lives to a ripe old age and then drops dead.

April 30, 1986

COMMENTS OF

THE CHINA CLAY PRODUCERS

ON

H.R. 1309

"The High-Risk Occupational Disease Notification and Prevention Act of 1985"

The China Clay Producers are a group of companies engaged in the surface mining of china clay in Georgia and South Carolina. 1/ We strongly support and share the Subcommittee's commitment to protecting the safety and health of the nation's workforce. However, we question whether H.R. 1309 is the most effective and efficient means of accomplishing these goals. In addition, we have serious concerns about the appropriateness of several of specific provisions of H.R. 1309. The reasons for our questions and concerns and our suggested alternatives are discussed below.

H.R. 1309 states its goals are:

(a) to expand research to identify and define employee populations at risk of occupational disease;

(b) notification of workers at risk of occupational disease;

(c) protection of such workers against discrimination; and

(d) establishing occupational and environmental health care centers for the treatment of occupational disease.

Attainment of the final goal, establishing government or employer-financed occupational health care centers for the _treatment_ of occupational disease, would be a significant step toward a socialized medical care system for American workers and, in our view, reaches far beyond the primary goals of the proposed legislation. Such a change in health care policy for workers requires a substantial policy decision that should be made separately, not in the context of legislation primarily concerned with the notification of workers at risk of occupational disease. The China Clay Producers believe that the remaining goals of H.R. 1309 can be adequately and more efficiently met under existing provisions of the Mine Safety and Health Act (MSHA) and the Occupational Safety and Health Act (OSHA).

A review of existing MSHA and OSHA provisions makes it clear that H.R. 1309's principal goals of (1) _research_; (2) _notification_ of workers at risk; and (3) _protection of such workers against discrimination_ are, to a large extent, met under existing laws. The most efficient method for fully attaining those goals is through appropriate modification of those laws, not through establishing a new regulatory structure.

1. _Research Goal_.

Section 3 of H.R. 1309 would direct the Secretary of Health and Human Services (Secretary) to conduct research to (a)

1/ Anglo-American Clays Corporation, Engelhard Corporation, Georgia Kaolin Company, J.M. Huber Corporation, Nord Kaolin Company, Thiele Kaolin Company.

improve surveillance, medical monitoring and treatment of workers exposed to occupational health hazards, and (b) identify and define worker populations at risk.

Through MSHA and OSHA Congress has already directed the Secretary to conduct such studies. [2] The National Institute for Occupational Safety and Health (NIOSH) is responsible for the identification, understanding and prevention of numerous occupational health hazards. NIOSH has conducted thousands of occupational health studies over the past 15 years which have provided great insight into occupational disease prevention. These studies also provide the basis for mandatory safety and health standards. Moreover, because such studies investigate potential hazards as they *actually* exist in specific occupations (*e.g.*, the level and duration of exposure, other possible contributing factors in the work environment) and the causal relationship between these potential hazards and occupational diseases, they provide the *most pertinent* data for determining which workers are at risk of occupational disease.

The National Occupational Health Survey of Mining (NOHSM), currently in progress, is an excellent example of such a study. A similar study was recently concluded for general industry. Through NOHSM, NIOSH is gathering data on potential exposures to health-related agents in mines, highlighting observed patterns, categories of potential exposures, the number of miners potentially exposed, and conditions of exposure.

The most effective way to attain the H.R. 1309's goal of expanding occupational health research is to ensure adequate appropriations to fund these existing research programs. Increasing the funding for existing programs would be less costly, but more beneficial than expending funds to establish and maintain yet another regulatory entity, *i.e.*, the Risk Assessment Board, as is proposed in H.R. 1309.

2. *Notification Goal*.

Section 4 of H.R. 1309 would establish a Risk Assessment Board to identify worker populations at risk of occupational disease. Section 5 would direct the Secretary to notify such workers of the nature of the health risk and advise them concerning appropriate medical monitoring.

A structure for identifying and notifying workers at risk of occupational disease already exists under MSHA and OSHA mandatory safety and health standards, the Hazard Communication Standard and mandatory safety and health training. These regulations currently identify numerous occupational health risks and require notification of employees exposed to those risks. Therefore, the apparatus for notification of workers exists and if necessary can be utilized if new risks are identified.

MSHA and OSHA currently identify hazardous occupational exposures and define permissible exposure levels under the mandatory safety and health standards. The concept of permissible exposure levels is extremely important in identifying the discrete population of workers who are actually at risk from occupational hazards. Because H.R. 1309's key definitions are vague, arbitrary and grossly oversimplify the complex determination of workers at risk, 3/ the defined populations at risk would be overinclusive. H.R. 1309 would require notification of any worker exposed to a particular substance that was determined to present an increased health risk, regardless of whether the worker's exposure exceeded permissible (i.e., safe) limits. 4/ Because the health and safety standards define the discrete worker population actually at risk, they provide the most appropriate mechanism for notification.

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[2] For example, under MSHA, the Secretary "shall, *for each toxic material or harmful physical agent* which is used or found in a mine, determine whether such material or agent is *potentially toxic at the concentrations in which it is used* or found in a mine." 30 U.S.C. §811(a)(6)(B); the Secretary shall conduct studies ". . . (5) to develop epidemiological information to (A) *identify and define positive factors involved in occupational diseases* of miners . . . (6) to develop *techniques for the prevention and control* of occupational diseases of miner, including tests for hypersusceptibility and *early detection*. . . (9) to study the *relationship between coal or other mine environments and occupational diseases* of miners. . . ." 30 U.S.C. §951(a).

Appropriate OSHA standards do require employers to notify workers exposed to occupational hazards of the nature of the hazardous exposure and the results of required or recommended medical examinations or other tests. 5/ See, e.g., 29 C.F.R. §1910.1001(i) and (j) (requiring notification of employees exposed to asbestos, preplacement, annual and termination medical examinations); 29 C.F.R. §1910.1003(g) (requiring a system of medical surveillance of workers potentially exposed to 4-Nitrobiphenyl through preplacement, annual and termination medical examinations). MSHA is currently developing similar standards. The notification provisions in these standards do not contain specific requirements concerning the contents of the notification such as those set forth in Section 5(b) of H.R. 1309. 6/ However, a new regulatory structure is not necessary to provide the type of notification required under H.R. 1309. The existing regulations can simply be modified to include similar content specifications.

Making notification an integral part of the safety and health standards will also provide an automatic mechanism for notification of workers when health risks are re-evaluated on the basis of new scientific evidence. If notification is triggered by exposure to a hazard as defined by the existing standard, a modification of the standard (e.g., permissible exposure level) based

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3/ "Hazardous occupational exposure," for example, is defined as "any harmful chemical, physical, or biological agent . . . found in the workplace which is associated with the risk of disease." Thus, the mere presence of a hazardous substance in the work place, regardless of an employee's exposure to it, is a basic element of H.R. 1309's notification requirement. In addition, the level of risk is defined by an arbitrarily selected percentage increase in the incidence of disease. The determination of populations at risk of occupational disease is a matter of scientific judgment that should be made by qualified scientific experts based on medical and statistical analyses of appropriate studies. It should not be arbitrarily mandated by a fixed percentage increase in the incidence of disease within the employee population.

4/ This could create an inconsistency in the regulations. On the one hand, a safety and health standard could indicate that workers whose exposure to a hazardous substance does not exceed permissible levels are not at risk. On the other hand, H.R. 1309 could require that such workers be notified that they are at risk.

5/ MSHA and OSHA require appropriate mandatory health and safety standards to "prescribe the type and frequency of medical examinations or other test which shall be made available, by the [operator/employer] at his cost, to [miners/workers] exposed to such hazards in order to most effectively determine whether the health of such [miners/employees] is adversely affected by such exposure." 30 U.S.C. §811(a)(7); 29 U.S.C. §655(b)(7).

6/ For example, Section 5(b) requires that the notification include: (1) the nature and degree of risk; (2) identification of the hazardous exposure; (3) the disease or diseases associated with the hazardous exposure; (4) any known latency periods between exposure and manifestation of the disease; and (5) appropriate counseling information.

on new data will automatically trigger notification of workers not previously identified as at risk.

Moreover utilizing the OSHA and MSHA determinations of occupational health risks, would eliminate the need for a Risk Assessment Board. [7] Administrative costs would therefore be reduced and more of each dollar appropriated would be available for occupational disease research and services for workers at risk of occupational disease.

Proper safety and health training is perhaps the most important method of reducing the risk of occupational disease. The OSHA Hazard Communication Standard, which will be fully effective on May 25, 1986, requires chemical manufacturers to provide employers with material safety data sheets that describe the hazards from each chemical and appropriate precautions. This data will be made available to employees and employees will be trained in the hazards of chemicals to which they may be exposed. Amending the Hazard Communication Standard to cover all employers would significantly expand notification and training of workers.

Existing MSHA rules also mandate health and safety training and contain specific requirements concerning the duration and content of that training. MSHA regulations require a minimum of 40 hours of training for new underground employees, 30 C.F.R. §48.5, and a minimum of 24 hours of training for new surface employees. 30 C.F.R. §48.25. In addition, every employee must receive 8 hours of annual refresher training. 30 C.F.R. §§48.8, 48.28. Training programs and instructors must be approved by MSHA. The MSHA-approved training program must include instruction on health and safety standards and the recognition and avoidance of hazards, including toxic substance protection where appropriate. The required instruction on health standards ensures that miners are well informed regarding the health risks associated with their specific occupation, and of the type and frequency of medical examinations or other tests required or recommended.

For the reasons stated, we submit that OSHA and MSHA's existing programs establish an effective system for notifying current employees at risk from occupational hazards. While these laws do not presently provide for the notification of past employees we believe they could be easily modified to accomplish that goal. However, we submit that any such new requirement must be established on a reasonable basis. Because identification and location of past employees exposed to an occupational hazzard would not be possible in many instances, individual notification should be only one of several options for notifying past employees. To the extent individual notification of past employees is required, the requirement should only apply prospectively (*i.e.*, for employees terminated after the effective date). This would afford employers an opportunity to establish appropriate record retention procedures to facilitate notification of past employees. For employees terminated prior to the effective date of the notification requirement, the employer should only be obligated to use its best efforts to notify employees, *e.g.*, through registered letters sent to the employee's last known address.

3. Nondiscrimination Goal.

Section 7 of H.R. 1309 would prohibit discrimination against workers that have been notified that they are at risk of an occupational disease.

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[7] If the Board is established, its fundings and recommendations will result in substantial obligations for employers and their health insurance carriers. We believe, therefore, that rulemaking procedure, *i.e.*, publication of required notifications in the Federal Register with an opportunity for comment, should be required. Moreover, any such board should include at least one representative from industry.

MSHA and OSHA currently protect workers at risk from hazardous exposure against discrimination. For example, MSHA requires that, if it is determined that a miner may suffer material adverse health effects as a result of a hazardous exposure, the miner shall be reassigned. A miner reassigned under this provision "shall continue to receive compensation for such work at no less than the regular rate of pay for miners in the classification such miner held immediately prior to his transfer." 30 U.S.C. §811(a)(7). Like Section 7, this provision ensures that miners at risk of occupational disease will be reassigned when necessary, and will not suffer a decrease in wages if reassigned. Although the MSHA language is not as broad as Section 7, MSHA and OSHA regulations could be amended to include a more general prohibition against discrimination, similar to Section 7, if that is deemed appropriate.

C. Summary of Position.

The China Clay Producers will support and assist efforts to accomplish the goals of H.R. 1309 through MSHA and OSHA, as they exist or as appropriately modified. We believe, however, that establishing a new regulatory structure is a costly and unnecessary approach to attaining those goals. We fear that a significant portion of the funds appropriated to that purpose would be lost on unnecessary administrative expenses rather than occupational health research and other efforts to protect and assist workers at risk of occupational disease. We therefore strongly urge the Subcommittee to pursue the primary goals of H.R. 1309 through the existing regulatory structure.

Submitted by,

Gordon O. Pehrson, Jr.
Marguerite E. Trossevin
Sutherland, Asbill & Brennan
Counsel for the China Clay Producers